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 720
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 780
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 900
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 960
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 1020
 aaggctgcag cagcagccca aaaacaagca aagcggagga acccagacag ccctgccaaa
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<210> 3850

<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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Val	Thr	Gln	Val	Leu	Val	Pro	Gly	Leu	Pro	Gly	Gly	Gly	Ser	Ala	Lys
			20					25					30		
Phe	Pro	Phe	Asn	Gln	Trp	Gly	Leu	Gln	Pro	Arg	Ser	Leu	Leu	Gln	
		35				40					45				
Ala	Ala	Arg	Gly	Tyr	Val	Val	Arg	Lys	Pro	Ala	Gln	Ser	Arg	Leu	Asp
	50					55				60					
Asp	Asp	Pro	Pro	Pro	Ser	Thr	Leu	Leu	Lys	Asp	Tyr	Gln	Asn	Val	Pro
65					70				75					80	
Gly	Ile	Glu	Lys	Val	Asp	Asp	Val	Val	Lys	Arg	Leu	Leu	Ser	Leu	Glu
				85					90					95	
Met	Ala	Asn	Lys	Lys	Glu	Met	Leu	Lys	Ile	Lys	Gln	Glu	Gln	Phe	Met
			100					105					110		
Lys	Lys	Ile	Val	Ala	Asn	Pro	Glu	Asp	Thr	Arg	Ser	Leu	Glu	Ala	Arg
		115				120						125			
Ile	Ile	Ala	Leu	Ser	Val	Lys	Ile	Arg	Ser	Tyr	Glu	Glu	His	Leu	Glu
	130					135					140				
Lys	His	Arg	Lys	Asp	Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile
145				150					155					160	
Asp	Gln	Arg	Lys	Lys	Met	Leu	Lys	Asn	Leu	Arg	Asn	Thr	Asn	Tyr	Asp
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<400> 3851
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240
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300
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360
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420
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480
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540
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600
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660
aacaatactt accttgtaga gaggttagaa tatgaaagt ttcagtgtgg acagcagatg
720
aaggaattga gagcacagca tgaagaaaat attaaaaagt tagcagacca gtttttagag
780
gaacaaaagc aagagaccca aaagattcaa tcaaatgatg gaaaggaatt ggatataaac
840
aatcaagtag tacctaaaaa tattccaaaa gtgctgaga atgttgaga taagaatgaa
900
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960
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1020
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1080

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actggacaac ctctctcccc aaatatgcct ccagattcac acataaacca caatggaaac
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 1183

<210> 3852

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3852

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Val	Leu	Val	Val	Leu	Leu	Val	Val	Ile	Val	Val	Leu	Ala	Phe	Asn	Tyr	20	25	30	
Trp	Ser	Ile	Ser	Ser	Arg	His	Val	Leu	Leu	Gln	Glu	Glu	Val	Ala	Glu	35	40	45	
Leu	Gln	Gly	Gln	Val	Gln	Arg	Thr	Glu	Val	Ala	Arg	Gly	Arg	Leu	Glu	50	55	60	
Lys	Arg	Asn	Ser	Asp	Leu	Leu	Leu	Val	Asp	Thr	His	Lys	Lys	Gln		65	70	75	80
Ile	Asp	Gln	Lys	Glu	Ala	Asp	Tyr	Gly	Arg	Leu	Ser	Ser	Arg	Leu	Gln	85	90	95	
Ala	Arg	Glu	Gly	Leu	Gly	Lys	Arg	Cys	Glu	Asp	Asp	Lys	Val	Lys	Leu	100	105	110	
Gln	Asn	Asn	Ile	Ser	Tyr	Gln	Met	Ala	Asp	Ile	His	His	Leu	Lys	Glu	115	120	125	
Gln	Leu	Ala	Glu	Leu	Arg	Gln	Glu	Phe	Leu	Arg	Gln	Glu	Asp	Gln	Leu	130	135	140	
Gln	Asp	Tyr	Arg	Lys	Asn	Asn	Thr	Tyr	Leu	Val	Lys	Arg	Leu	Glu	Tyr	145	150	155	160
Glu	Ser	Phe	Gln	Cys	Gly	Gln	Gln	Met	Lys	Glu	Leu	Arg	Ala	Gln	His	165	170	175	
Glu	Glu	Asn	Ile	Lys	Lys	Leu	Ala	Asp	Gln	Phe	Leu	Glu	Glu	Gln	Lys	180	185	190	
Gln	Glu	Thr	Gln	Lys	Ile	Gln	Ser	Asn	Asp	Gly	Lys	Glu	Leu	Asp	Ile	195	200	205	
Asn	Asn	Gln	Val	Val	Pro	Lys	Asn	Ile	Pro	Lys	Val	Ala	Glu	Asn	Val	210	215	220	
Ala	Asp	Lys	Asn	Glu	Glu	Pro	Ser	Ser	Asn	His	Ile	Pro	His	Gly	Lys	225	230	235	240
Glu	Gln	Ile	Lys	Arg	Gly	Gly	Asp	Ala	Gly	Met	Pro	Gly	Ile	Glu	Glu	245	250	255	
Asn	Asp	Leu	Ala	Lys	Val	Asp	Asp	Leu	Pro	Pro	Ala	Leu	Arg	Lys	Pro	260	265	270	
Pro	Ile	Ser	Val	Ser	Gln	His	Glu	Ser	His	Gln	Ala	Ile	Ser	His	Leu	275	280	285	
Pro	Thr	Gly	Gln	Pro	Leu	Ser	Pro	Asn	Met	Pro	Pro	Asp	Ser	His	Ile	290	295	300	
Asn	His	Asn	Gly	Asn	Pro	Gly	Thr	Ser	Lys	Gln	Asn	Pro	Ser	Ser	Pro	305	310	315	320
Leu	His	Ala																	

<210> 3853
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 3853
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 120
 atggacgaac gaaggactat taaactcagt gagtgttaca gaggatttgc tgactcagaa
 180
 cgcaaagtta ttcccatcat ttcaaaatgt ttggaaggaa tgattcttgc agcaaaatca
 240
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 360
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 375

<210> 3854
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 3854
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 20 25 30
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 35 40 45
 Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys Val Ile
 50 55 60
 Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala Lys Ser
 65 70 75 80
 Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe Lys Ser
 85 90 95
 Gly Phe Glu Pro Pro Gly Asp Phe Pro Phe Glu Asp Tyr Ser Gln His
 100 105 110
 Ile Tyr Arg Thr Ile Ser Asp Gly Thr Ile Ser Ala Ser
 115 120 125

<210> 3855
 <211> 1377
 <212> DNA
 <213> Homo sapiens

<400> 3855
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 120

cagaactgtg gctctggtgt gggtgggata gtggactatg gacctagacc caacaagagt
 180
 gaaatgtggg atgtcttctg ctatcggatg aaagatgtga actgcacctg caaggtgggc
 240
 tatgtgggag atggcttctc atgcagtggg aacctgctgc aggtcctgat gtccttcccc
 300
 tcactcacia acttcctgac ggaagtgtg gcctattcca acagctcagc tcgaggccgt
 360
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 420
 agtgggctgg gggagaatga gacctgtct gggcgggaca tcgagcacca cctcgccaat
 480
 gtcagcatgt ttttctacaa tgacctgtc aatggcacn accctgcaaa cgagggtggg
 540
 aagcaagctg ctcatcactg ccagccagga cccactnncc aaccgacgga gaccaggttt
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 720
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 780
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 840
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 900
 acaacctcag ctccccaga accttcctac gacccttca cggactctga agaacggcag
 960
 cttgagggca atgaccctt gaggacactg tgagggcctg gacgggagat gccagccatc
 1020
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 1080
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 1140
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 1200
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 1260
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<210> 3856

<211> 330

<212> PRT

<213> Homo sapiens

<400> 3856

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Ala	Lys	Tyr	His	Leu	Cys	Ser	Ala	Gly	Trp	Leu	Glu	Thr	Gly	Arg	Val
			20					25					30		
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val

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<210> 3857
<211> 797
<212> DNA
<213> Homo sapiens
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180
acaggggacac ttgcgacgaa gactcggtag cgcggcagtc ggaccgcata gacgatggca
240
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300
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 420
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 480
 aatcgccctt tgccctctcg tcggagcact ctcggagaa cgggagcttg cgcttctcca
 540
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 gcacgcccc tattagtgtt ccgggcccgg gcaggcccag ctcaaaagag ggcagacgca
 660
 gcgacacttg ttcttcacac acccccattc ggcgtagtac ccagagagct caagatgtgt
 720
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 797

<210> 3858

<211> 76

<212> PRT

<213> Homo sapiens

<400> 3858

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1			5					10					15		
Ala	Thr	Arg	Ala	Ala	Pro	Cys	Pro	Thr	Ser	Cys	Arg	Ala	Trp	Cys	Ser
		20					25					30			
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
		35				40					45				
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
	50				55				60						
Ala	Thr	Lys	Thr	Arg	Trp	Pro	Ala	Ser	Arg	Thr	Ala				
65					70				75						

<210> 3859

<211> 1449

<212> DNA

<213> Homo sapiens

<400> 3859

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 120
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 180
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 240
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 300
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 360

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 420
 aacatggaaa atggagaaaa tgaaggaaca attaaaatta ttgcaccttc accagtaaaa
 480
 agctttaaga aagcaaagaa tgaaaatagc cctgataccc aaagaagcaa atctcatgca
 540
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 600
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 660
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 720
 aggaggaggt cacgttcacg ctgtaacacc agcagtggta gtgaatcaga aaattctaat
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 960
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 1080
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 1320
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 1440
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<210> 3860

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3860

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Lys	Val	His	Phe	Lys	Glu	Thr	Gln	Phe	Glu	Leu	Arg	Val	Leu	Gly	Lys
			20				25					30			
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala
		35				40						45			
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
	50				55					60					
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

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65          70          75          80
Gly Ser Ile Arg Tyr Lys His Arg Tyr Ser Gly Arg Thr Ala Leu Gln
      85          90          95
Met Ser Arg Asp Leu Ser Ile Gln Leu Pro Arg Pro Asp Gln Asn Val
      100          105          110
Thr Arg Ser Arg Ser Lys Thr Tyr Pro Lys Arg Ile Ala Gln Thr Gln
      115          120          125
Pro Ala Glu Ser Asn Thr Ile Ser Arg Ile Thr Ala Asn Met Glu Asn
      130          135          140
Gly Glu Asn Glu Gly Thr Ile Lys Ile Ile Ala Pro Ser Pro Val Lys
145          150          155          160
Ser Phe Lys Lys Ala Lys Asn Glu Asn Ser Pro Asp Thr Gln Arg Ser
      165          170          175
Lys Ser His Ala Pro Trp Glu Glu Asn Gly Pro Gln Ser Gly Leu Tyr
      180          185          190
Asn Ser Pro Ser Asp Arg Thr Lys Ser Pro Lys Phe Pro Tyr Thr Arg
      195          200          205
Arg Arg Asn Pro Ser Cys Gly Ser Asp Asn Asp Ser Val Gln Pro Val
      210          215          220
Arg Arg Arg Lys Ala His Asn Ser Gly Glu Asp Ser Asp Leu Lys Gln
225          230          235          240
Arg Arg Arg Ser Arg Ser Arg Cys Asn Thr Ser Ser Gly Ser Glu Ser
      245          250          255
Glu Asn Ser Asn Arg Glu His Arg Lys Lys Arg Asn Arg Ile Arg Gln
      260          265          270
Glu Asn Asp Met Val Asp Ser Ala Pro Gln Trp Glu Ala Val Leu Arg
      275          280          285
Arg Gln Lys Glu Lys Asn Gln Ala Asp Pro Asn Asn Arg Arg Ser Arg
      290          295          300
His Arg Ser Arg Ser Arg Ser Pro Asp Ile Gln Ala Lys Glu Glu Leu
305          310          315          320
Trp Lys His Ile Gln Lys Glu Leu Val Asp Pro Ser Gly Leu Ser Glu
      325          330          335
Glu Gln Leu Lys Glu Ile Pro Tyr Thr Lys Ile Glu
      340          345

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<210> 3861

<211> 748

<212> DNA

<213> Homo sapiens

<400> 3861

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120
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180
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240
cgagagctgt ccatactgcg gggcgtgcga caccgcaca tcgtgcacgt cttcgagttc
300
atcgaggtgt gcaacgggaa actgtacatc gtgatggaag cggccgccac cgacctgctg
360

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caagccgtgc agcgcaacgg gcgcaccccc ggagttcagg cgcgcgacct ctttgcgag
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 480
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 748

<210> 3862

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3862

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Thr	Ile	Gly	Glu	Gly	Ser	Tyr	Ser	Lys	Val	Lys	Val	Ala	Thr	Ser	Lys
			20					25					30		
Lys	Tyr	Lys	Gly	Thr	Val	Ala	Ile	Lys	Val	Val	Asp	Arg	Arg	Arg	Ala
		35					40				45				
Pro	Pro	Asp	Phe	Val	Asn	Lys	Phe	Leu	Pro	Arg	Glu	Leu	Ser	Ile	Leu
	50					55					60				
Arg	Gly	Val	Arg	His	Pro	His	Ile	Val	His	Val	Phe	Glu	Phe	Ile	Glu
65					70					75				80	
Val	Cys	Asn	Gly	Lys	Leu	Tyr	Ile	Val	Met	Glu	Ala	Ala	Ala	Thr	Asp
			85					90						95	
Leu	Leu	Gln	Ala	Val	Gln	Arg	Asn	Gly	Arg	Ile	Pro	Gly	Val	Gln	Ala
		100						105					110		
Arg	Asp	Leu	Phe	Ala	Gln	Ile	Ala	Gly	Ala	Val	Arg	Tyr	Leu	His	Asp
		115					120					125			
His	His	Leu	Val	His	Arg	Asp	Leu	Lys	Cys	Glu	Asn	Val	Leu	Leu	Ser
	130					135					140				
Pro	Asp	Glu	Arg	Arg	Val	Lys	Leu	Thr	Asp	Phe	Gly	Phe	Gly	Arg	Gln
145					150					155				160	
Ala	His	Gly	Tyr	Pro	Asp	Leu	Ser	Thr	Thr	Tyr	Cys	Gly	Ser	Ala	Val
			165					170					175		
Arg	Val	Thr	Arg	Val	Met	His	Phe	Leu	Ser	Thr	Tyr	Cys	Leu	Pro	Gly
		180					185					190			
Pro	Arg	Ala	His	Gly	Glu	Glu	Thr	Trp	Ala	His	Pro	Cys	Arg	Lys	Arg
		195				200						205			
Asp	Asn														
	210														

<210> 3863

<211> 341

<212> DNA

<213> Homo sapiens

<400> 3863

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 120
 agttttgctc tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cacgaggttc
 180
 ttctggtcga ggctccccga gaaccatctg gccatgggct ggcagccgag ttctcgagt
 240
 gtccaggctg acggtacatt ccaggctagc catcctatca taatcgaatc tgagtagatt
 300
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 341

<210> 3864

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3864

Met	Ala	Cys	Pro	Lys	Arg	Leu	Ile	Lys	Ile	Tyr	Ser	Asp	Ser	Ile	Met
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Ile	Gly	Trp	Leu	Ala	Trp	Asn	Val	Pro	Ser	Ala	Trp	Thr	Leu	Arg	Glu
			20					25					30		
Leu	Gly	Cys	Gln	Pro	Met	Ala	Arg	Trp	Phe	Ser	Gly	Ser	Leu	Asp	Gln
		35					40					45			
Lys	Asn	Leu	Val	Glu	Ile	Ser	His	Thr	Val	Phe	Phe	Pro	Glu	Ser	Gln
	50					55					60				
Leu	Arg	Ala	Lys	Leu	Lys	Cys	Pro	Gly	Gly	Ser	Cys	Thr	Pro	Gly	Leu
65					70					75				80	
Lys	Lys	Ile	Gly	Ser	Leu	Lys	Val	Ser	Cys	Glu	Glu	Phe	Leu	Leu	Met
				85					90					95	
Gly	Leu	Arg	Tyr	Gln	His	Leu	Asp	Pro	Pro	Ser	Arg				
				100					105						

<210> 3865

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3865

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 120
 gagacctatg tgaagccac ttaattttct gaaacttcac atcatgtacc ttcattgtaa
 180
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 360

tagtctgggt caaatagtagt aaactgaata ttccttaacc aaaatgcttg gaagtaggcc
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 480
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 492

<210> 3866
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 3866
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 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu
 35 40 45
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe
 50 55 60
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys
 65 70 75 80
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser
 85 90 95
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln
 100 105

<210> 3867
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 3867
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 ctggacagtg caaagcgatc ggaggacagg gagaaggagg ctctgattga ggagctctta
 180
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 240
 agaaaagcag agcgtgaact caccgccctg aaggagagccc tgaaagaaga ggtttccagc
 300
 catgatcagg agatggacaa gctgaaggag caatatgatg ctgagttgca ggccctgagg
 360
 gagagtgtgg aagaagcaac caagaatgtc gaggtcttgg cgagcaggag caacacttca
 420
 gagcaagacc aggcggggac tgaaatgcgc gtgaagcttc tgcaggagga gaatgagaag
 480
 ctgcagggaa gaagcgaaga gctggagcgg agagttgctc agcttcaaag gcagatcgag
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 gacctgaaag gcgatgaagc caaggcgaag gaaacgctga agaagtacga gggagaaata
 600

cgacagttag aggaggccct tgtgcacgcc agaaaggaag aaaaagaagc tgtgtcagcc
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 agaagggccc tggagaatga actggaggct gctcaggga atctgagtca gactaccag
 720
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 840
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 900
 cagctggatg agtataagga gaaaaaccgc agggagctcg cagaaatgca aagacagttg
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 1020
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 1032

<210> 3868

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3868

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Lys	Met	Glu	Arg	Glu	Gln	His	Gln	Thr	Glu	Ile	Arg	Asp	Leu	Gln	Asp
			20					25					30		
Gln	Leu	Ser	Glu	Met	His	Asp	Glu	Leu	Asp	Ser	Ala	Lys	Arg	Ser	Glu
		35					40					45			
Asp	Arg	Glu	Lys	Gly	Ala	Leu	Ile	Glu	Glu	Leu	Leu	Gln	Ala	Lys	Gln
		50				55					60				
Asp	Leu	Gln	Asp	Leu	Leu	Ile	Ala	Lys	Glu	Glu	Gln	Glu	Asp	Leu	Leu
65					70				75					80	
Arg	Lys	Arg	Glu	Arg	Glu	Leu	Thr	Ala	Leu	Lys	Gly	Ala	Leu	Lys	Glu
				85					90					95	
Glu	Val	Ser	Ser	His	Asp	Gln	Glu	Met	Asp	Lys	Leu	Lys	Glu	Gln	Tyr
			100					105					110		
Asp	Ala	Glu	Leu	Gln	Ala	Leu	Arg	Glu	Ser	Val	Glu	Glu	Ala	Thr	Lys
		115					120					125			
Asn	Val	Glu	Val	Leu	Ala	Ser	Arg	Ser	Asn	Thr	Ser	Glu	Gln	Asp	Gln
		130				135					140				
Ala	Gly	Thr	Glu	Met	Arg	Val	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Glu	Lys
145					150					155				160	
Leu	Gln	Gly	Arg	Ser	Glu	Glu	Leu	Glu	Arg	Arg	Val	Ala	Gln	Leu	Gln
				165					170					175	
Arg	Gln	Ile	Glu	Asp	Leu	Lys	Gly	Asp	Glu	Ala	Lys	Ala	Lys	Glu	Thr
			180					185					190		
Leu	Lys	Lys	Tyr	Glu	Gly	Glu	Ile	Arg	Gln	Leu	Glu	Glu	Ala	Leu	Val
		195					200					205			
His	Ala	Arg	Lys	Glu	Glu	Lys	Glu	Ala	Val	Ser	Ala	Arg	Arg	Ala	Leu
	210					215					220				
Glu	Asn	Glu	Leu	Glu	Ala	Ala	Gln	Gly	Asn	Leu	Ser	Gln	Thr	Thr	Gln
225					230					235				240	
Glu	Gln	Lys	Gln	Leu	Ser	Glu	Lys	Leu	Lys	Glu	Glu	Ser	Glu	Gln	Lys

245 250 255
 Glu Gln Leu Arg Arg Leu Lys Asn Glu Met Glu Asn Glu Arg Trp His
 260 265 270
 Leu Gly Lys Thr Ile Glu Lys Leu Gln Lys Glu Met Ala Asp Ile Val
 275 280 285
 Glu Ala Ser Arg Thr Ser Thr Leu Glu Leu Gln Asn Gln Leu Asp Glu
 290 295 300
 Tyr Lys Glu Lys Asn Arg Arg Glu Leu Ala Glu Met Gln Arg Gln Leu
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 Lys Glu Lys Thr Leu Glu Ala Glu Lys Ser Arg Leu Thr Ala Met Lys
 325 330 335
 Met Gln Asp Glu Met Arg Leu Met
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<210> 3869

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3869

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 120
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 180
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 240
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 300
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 360
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 420
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 480
 gagtgactgg tcacaggtgg gggacagggt tgctccagaa accgtaggcc tttcttgtct
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<210> 3870

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3870

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Ala	Ile	His	His	Gly	Pro	Leu	Gln	Tyr	Leu	Thr	His	Gly	Pro	Gln	Leu
		20						25					30		
Leu	Leu	Gly	Ser	Gln	Trp	His	Leu	Ser	Val	Ala	Ser	Tyr	Leu	Pro	Gly
		35				40						45			
Pro	Gly	Trp	Gly	Thr	Val	Cys	Gly	His	Glu	Ala	Arg	Pro	Pro	Pro	Ala
		50				55					60				
Pro	Leu	Pro	Arg	Gly	Ser	Ser	Ile	Pro	Leu	His	Phe	Trp	Asn	Val	Cys
65				70						75				80	
Ala	Ser	Met	Met	Phe	Val	Tyr	Leu	Arg	His	Leu	Lys	Ile	Tyr	Phe	Arg
				85					90					95	
Tyr	Glu	Gly	Lys												
				100											

<210> 3871

<211> 473

<212> DNA

<213> Homo sapiens

<400> 3871

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 120
 tgggatgggtt gagttgacag ctctgaatcc cagaaacctt aattttggct tatcttttga
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 aagaaacaga agaaagacct ctgagagccg agacaagctg ggagcgaaag gagattttcc
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 473

<210> 3872

<211> 66
 <212> PRT
 <213> Homo sapiens

<400> 3872
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 Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg Ser
 35 40 45
 Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys
 50 55 60
 Asp Leu
 65

<210> 3873
 <211> 869
 <212> DNA
 <213> Homo sapiens

<400> 3873
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 300
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 360
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 420
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 660
 cccaataaga aggacctcag tggaaacacg cccctcattt acgctgctc cgggtggccat
 720
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 780
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 869

<210> 3874

<211> 289

<212> PRT

<213> Homo sapiens

<400> 3874

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Glu Ala Tyr His Leu Ser Phe Glu Arg Arg Gln Lys Ser Ser Glu Ala
      35           40           45
Pro Val Gln Ser Pro Gln Arg Ser Val Asp Ser Ile Ser Gln Glu Ser
      50           55           60
Ser Thr Ser Ser Phe Ser Ser Met Ser Ala Gly Ser Arg Gln Glu Glu
65           70           75           80
Thr Lys Lys Asp Tyr Arg Glu Val Glu Lys Leu Leu Arg Ala Val Ala
      85           90           95
Asp Gly Asp Leu Glu Met Val Arg Tyr Leu Leu Glu Trp Thr Glu Glu
      100          105          110
Asp Leu Glu Asp Ala Glu Asp Thr Val Ser Ala Ala Asp Pro Glu Phe
      115          120          125
Cys His Pro Leu Cys Gln Cys Pro Lys Cys Ala Pro Ala Gln Lys Arg
      130          135          140
Leu Ala Lys Val Pro Ala Ser Gly Leu Gly Val Asn Val Thr Ser Gln
145          150          155          160
Asp Gly Ser Ser Pro Leu His Val Ala Ala Leu His Gly Arg Ala Asp
      165          170          175
Leu Ile Arg Leu Leu Leu Lys His Gly Ala Asn Ala Gly Ala Arg Asn
      180          185          190
Ala Asp Gln Ala Val Pro Leu His Leu Ala Cys Gln Gln Gly His Phe
      195          200          205
Gln Val Val Lys Cys Leu Leu Asp Ser Asn Ala Lys Pro Asn Lys Lys
      210          215          220
Asp Leu Ser Gly Asn Thr Pro Leu Ile Tyr Ala Cys Ser Gly Gly His
225          230          235          240Glu Leu
Val Ala Leu Leu Leu Gln His Gly Ala Ser Ile Asn Ala
      245          250          255
Leu Thr Ile Arg Gly Asn Thr Ala Leu His Glu Ala Val Ile Glu Lys
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His Val Phe Val Val Glu Leu Leu Leu Leu His Gly Ala Ser Val Arg
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<210> 3875

<211> 2640

<212> DNA

<213> Homo sapiens

<400> 3875

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120

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<210> 3876

<211> 824

<212> PRT

<213> Homo sapiens

<400> 3876

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			20				25					30		
Pro	Pro	Ala	Ala	Leu	Gly	Leu	Val	Ser	Ser	Arg	Thr	Ser	Gly	Ala
			35				40					45		
Pro	Pro	Lys	Glu	Glu	Glu	Leu	Arg	Ala	Ala	Val	Glu	Val	Leu	Arg
			50				55				60			
His	Gly	Leu	His	Ser	Val	Leu	Glu	Glu	Trp	Phe	Val	Glu	Val	Leu
65					70				75					80
Asn	Asp	Leu	Gln	Ala	Asn	Ile	Ser	Pro	Glu	Phe	Trp	Asn	Ala	Ile
			85						90					95
Gln	Cys	Glu	Asn	Ser	Ala	Asp	Glu	Pro	Gln	Cys	Leu	Leu	Leu	Leu
			100					105					110	
Asp	Ala	Phe	Gly	Leu	Leu	Glu	Ser	Arg	Leu	Asp	Pro	Tyr	Leu	Arg
			115				120					125		
Leu	Glu	Leu	Leu	Glu	Lys	Trp	Thr	Arg	Leu	Gly	Leu	Leu	Met	Gly
														Thr

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	165	170
Tyr Gly Cys Phe Leu Arg Val Tyr Met Gln Ser Lys Arg Lys Gly Glu		175
	180	185
Gly Gly Thr Asp Pro Glu Leu Glu Gly Glu Leu Asp Ser Arg Tyr Ala		190
	195	200
Arg Arg Arg Tyr Tyr Arg Leu Leu Gln Ser Pro Leu Cys Ala Gly Cys		205
	210	215
Ser Ser Asp Lys Gln Gln Cys Trp Cys Arg Gln Ala Leu Glu Gln Phe		220
225	230	235
His Gln Leu Ser Gln Val Leu His Arg Leu Ser Leu Leu Glu Arg Val		240
	245	250
Ser Ala Glu Ala Val Thr Thr Thr Leu His Gln Val Thr Arg Glu Arg		255
	260	265
Met Glu Asp Arg Cys Arg Gly Glu Tyr Glu Arg Ser Phe Leu Arg Glu		270
	275	280
Phe His Arg Trp Ile Glu Arg Val Val Gly Trp Leu Gly Lys Val Phe		285
	290	295
Leu Gln Asp Gly Pro Ala Arg Pro Ala Ser Pro Glu Ala Gly Asn Thr		300
305	310	315
Leu Arg Arg Trp Arg Cys His Val Gln Arg Phe Phe Tyr Arg Ile Tyr		320
	325	330
Ala Ser Leu Arg Ile Glu Glu Leu Phe Ser Ile Val Arg Asp Phe Pro		335
	340	345
Asp Ser Arg Pro Ala Ile Glu Asp Leu Lys Tyr Cys Leu Glu Arg Thr		350
	355	360
Asp Gln Arg Gln Gln Leu Leu Val Ser Leu Lys Ala Ala Leu Glu Thr		365
	370	375
Arg Leu Leu His Pro Gly Val Asn Thr Cys Asp Ile Ile Thr Leu Tyr		380
385	390	395
Ile Ser Ala Ile Lys Ala Leu Arg Val Leu Asp Pro Ser Met Val Ile		400
	405	410
Leu Glu Val Ala Cys Glu Pro Ile Arg Arg Tyr Leu Arg Thr Arg Glu		415
	420	425
Asp Thr Val Arg Gln Ile Val Ala Gly Leu Thr Gly Asp Ser Asp Gly		430
	435	440
Thr Gly Asp Leu Ala Val Glu Leu Ser Lys Thr Asp Pro Ala Ser Leu		445
	450	455
Glu Thr Gly Gln Asp Ser Glu Asp Asp Ser Gly Glu Pro Glu Asp Trp		460
465	470	475
Val Pro Asp Pro Val Asp Ala Asp Pro Gly Lys Ser Ser Ser Lys Arg		480
	485	490
Arg Ser Ser Asp Ile Ile Ser Leu Leu Val Ser Ile Tyr Gly Ser Lys		495
	500	505
Asp Leu Phe Ile Asn Glu Tyr Arg Ser Leu Leu Ala Asp Arg Leu Leu		510
	515	520
His Gln Phe Ser Phe Ser Pro Glu Arg Glu Ile Arg Asn Val Glu Leu		525
	530	535
Leu Lys Leu Arg Phe Gly Glu Ala Pro Met His Phe Cys Glu Val Met		540
545	550	555
Leu Lys Asp Met Ala Asp Ser Arg Arg Ile Asn Ala Asn Ile Arg Glu		560


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<210> 3877
<211> 1112
<212> DNA
<213> Homo sapiens
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<400> 3877
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120
aactatattc agcctcaaaa aagacagacc acttttgaaa gccaggatcg caaggcagtg
180
tcccctagca gttctgaaaa gagaagtaag aatcctatct ctaggccatt agaaggtaag
240
aagtccttaa gtcttagtgc aaagactcac aacataggct ttgacaaaga cagctgccat
300
agtaccacaa agacagaagc ttcacaggaa gagcggctctg attcaagcgg cctcacatct
360
ctcaagaaat caccaaaggt ctcatccaag gacactcggg aaatcaaaac tgattttctca
420
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ctttctatta gtaattcgtc agatgtgagt gctaaagata agcatgctga agacaatgag
 480
 aagcgtttgg cagccttgga agcgaggcaa aaagcaaaag aagtgcagaa gaagctgggtg
 540
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 660
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 720
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 780
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 840
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 960
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<210> 3878

<211> 370

<212> PRT

<213> Homo sapiens

<400> 3878

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Gly	Ser	Pro	Tyr	Val	Asn	Gly	Ser	Leu	Gly	Glu	Val	Thr	Pro	Cys	Gln
			20					25					30		
His	Ala	Lys	Lys	Ala	Asn	Gly	Pro	Asn	Tyr	Ile	Gln	Pro	Gln	Lys	Arg
			35				40					45			
Gln	Thr	Thr	Phe	Glu	Ser	Gln	Asp	Arg	Lys	Ala	Val	Ser	Pro	Ser	Ser
	50					55					60				
Ser	Glu	Lys	Arg	Ser	Lys	Asn	Pro	Ile	Ser	Arg	Pro	Leu	Glu	Gly	Lys
65					70				75				80		
Lys	Ser	Leu	Ser	Leu	Ser	Ala	Lys	Thr	His	Asn	Ile	Gly	Phe	Asp	Lys
			85					90					95		
Asp	Ser	Cys	His	Ser	Thr	Thr	Lys	Thr	Glu	Ala	Ser	Gln	Glu	Glu	Arg
		100						105					110		
Ser	Asp	Ser	Ser	Gly	Leu	Thr	Ser	Leu	Lys	Lys	Ser	Pro	Lys	Val	Ser
	115					120					125				
Ser	Lys	Asp	Thr	Arg	Glu	Ile	Lys	Thr	Asp	Phe	Ser	Leu	Ser	Ile	Ser
	130				135					140					
Asn	Ser	Ser	Asp	Val	Ser	Ala	Lys	Asp	Lys	His	Ala	Glu	Asp	Asn	Glu
145				150						155				160	
Lys	Arg	Leu	Ala	Ala	Leu	Glu	Ala	Arg	Gln	Lys	Ala	Lys	Glu	Val	Gln
			165					170					175		
Lys	Lys	Leu	Val	His	Asn	Ala	Leu	Ala	Asn	Leu	Asp	Gly	His	Pro	Glu

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<400> 3879
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300
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660

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<210> 3880

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3880

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Phe	Leu	His	Arg	Leu	Pro	Ser	Glu	Val	Ser	Ala	Leu	Gln	His	Leu	Lys
			20					25					30		
Ala	Ile	Asp	Leu	Ser	Arg	Asn	Gln	Phe	Gln	Asp	Phe	Pro	Glu	Gln	Leu
		35				40					45				
Thr	Ala	Leu	Pro	Ala	Leu	Glu	Thr	Ile	Asn	Leu	Glu	Glu	Asn	Glu	Ile
	50				55					60					
Val	Asp	Val	Pro	Val	Glu	Lys	Leu	Ala	Ala	Met	Pro	Ala	Leu	Arg	Ser
65				70					75				80		
Ile	Asn	Leu	Arg	Phe	Asn	Pro	Leu	Asn	Ala	Glu	Val	Arg	Val	Ile	Ala
			85			90						95			
Pro	Pro	Leu	Ile	Lys	Phe	Asp	Met	Leu	Met	Ser	Pro	Glu	Gly	Ala	Arg
			100				105						110		
Ala	Pro	Leu	Pro												
			115												

<210> 3881

<211> 1393

<212> DNA

<213> Homo sapiens

<400> 3881

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 180

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<210> 3882

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3882

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 Asp Ser Gly Ala Lys Gly Gly Lys Val Lys Leu Leu Gly Lys Pro Val
 20 25 30
 Gln Met Pro Ser Leu Asn Trp Pro Glu Ala Leu Pro Pro Pro Pro

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          35          40          45
Ser Cys Glu Leu Ser Cys Leu Glu Gly Pro Glu Glu Glu Leu Glu Gly
  50          55          60
Ser Ser Glu Pro Glu Glu Trp Cys Pro Pro Met Pro Glu Arg Ser His
  65          70          75          80
Leu Thr Glu Pro Ser Ser Ser Gly Gly Trp Leu Val Thr Pro Ser Arg
          85          90          95
Arg Glu Thr Pro Ser Pro Thr Pro Ser Tyr Gly Gln Gln Ser Thr Ala
          100          105          110
Thr Leu Thr Pro Ser Pro Pro Asp Pro Pro Gln Pro Pro Thr Asp Met
          115          120          125
Pro His Leu His Gln Met Pro Arg Arg Val Pro Leu Gly Pro Ser Ser
          130          135          140
Pro Leu Ser Val Ser Gln Pro Met Leu Gly Ile Arg Glu Ala Arg Pro
          145          150          155          160
Ala Gly Leu Gly Ala Gly Pro Ala Ala Ser Pro His Leu Ser Pro Ser
          165          170          175
Pro Ala Pro Ser Thr Ala Ser Ser Ala Pro Gly Arg Thr Trp Gln Gly
          180          185          190
Asn Gly Glu Met Thr Pro Pro Leu Gln Gly Pro Arg Ala Arg Phe Arg
          195          200          205
Lys Lys Pro Lys Ala Leu Pro Tyr Arg Arg Glu Asn Ser Pro Gly Asp
          210          215          220
Leu Pro Pro Pro Pro Leu Pro Pro Pro Glu Xaa Arg Gly Glu Leu Gly
          225          230          235          240
Pro Arg Ala Glu Gly Ser Arg Gln His Val Leu Pro Gly Ala Gly Ala
          245          250          255
Gln Trp Gly Glu Glu Ser Gly Pro Gly Arg Ala Pro Gly Ser Pro Ala
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Gly Ala Pro Pro Arg
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<210> 3883

<211> 943

<212> DNA

<213> Homo sapiens

<400> 3883

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<210> 3884

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3884

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			20					25					30		
Lys	Ala	Arg	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
		35					40					45			
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
	50					55				60					
Asp	Gly	Arg	Lys	Lys	Arg	Gly	Lys	Tyr	Lys	Asp	Lys	Arg	Arg	Lys	Lys
65					70					75				80	
Lys	Lys	Lys	Arg	Lys	Lys	Leu	Lys	Lys	Lys	Gly	Lys	Glu	Lys	Ala	Glu
			85						90					95	
Ala	Gln	Gln	Val	Glu	Ala	Leu	Pro	Gly	Pro	Ser	Leu	Asp	Gln	Trp	His
			100					105					110		
Arg	Ser	Ala	Gly	Glu	Glu	Glu	Asp	Gly	Pro	Val	Leu	Thr	Asp	Glu	Gln
		115					120					125			
Val	Pro	Asn	Pro	Gly	His	Glu	Ala	His	Asp	Gln	Gly	Gly	Trp	Asp	Ala
		130				135					140				
Arg	Gln	Ser	Val	Ile	Arg	Lys	Val	Val	Asp	Pro	Glu	Thr	Gly	Arg	Thr
145					150					155				160	
Arg	Leu	Ile	Lys	Gly	Asp	Gly	Glu	Val	Leu	Glu	Glu	Ile	Val	Thr	Lys
			165						170					175	
Glu	Arg	His	Arg	Glu	Ile	Asn	Lys	Val	Gly	Val	Ala	Pro	Leu	Pro	Ala
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Ile	Arg	Pro	Gln	Leu	Cys	Leu									
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<210> 3885

<211> 1671

<212> DNA

<213> Homo sapiens

<400> 3885
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<210> 3886

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3886

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<212> DNA

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 Arg Lys Val Val Asp Pro Glu Thr Gly Arg Thr Arg Leu Ile Lys Gly
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 Asp Gly Glu Val Leu Glu Glu Ile Val Thr Lys Glu Arg His Arg Glu
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<210> 3891
 <211> 1687
 <212> DNA
 <213> Homo sapiens

<400> 3891
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 300
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 420
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 780
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 840

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 1200
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 1260
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 1320
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 1380
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<210> 3892

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3892

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		20						25					30		
Ser	Gly	Leu	Phe	Ala	Leu	Cys	Thr	Leu	Asp	Gly	Thr	Leu	Lys	Leu	Met
		35					40					45			
Glu	Glu	Met	Glu	Glu	Ala	Asp	Lys	Leu	Leu	Trp	Ser	Val	Gln	Val	Asp
		50				55					60				
His	Gln	Leu	Phe	Ala	Leu	Glu	Lys	Leu	Asp	Val	Thr	Gly	Asn	Gly	His
65				70					75					80	
Glu	Glu	Val	Val	Ala	Cys	Ala	Trp	Asp	Gly	Gln	Thr	Tyr	Ile	Ile	Asp
			85					90					95		
His	Asn	Arg	Thr	Val	Val	Arg	Phe	Gln	Val	Asp	Glu	Asn	Ile	Arg	Ala
			100					105					110		
Phe	Cys	Ala	Gly	Leu	Tyr	Ala	Cys	Lys	Glu	Gly	Arg	Asn	Ser	Pro	Cys
		115					120					125			
Leu	Val	Tyr	Val	Thr	Phe	Asn	Gln	Lys	Ile	Tyr	Val	Tyr	Trp	Glu	Val

130		135		140											
Gln	Leu	Glu	Arg	Met	Glu	Ser	Thr	Asn	Leu	Val	Lys	Leu	Leu	Glu	Thr
145		150		155		160									
Lys	Pro	Ser	Thr	Thr	Ala	Cys	Cys	Arg	Ser	Trp	Ala	Trp	Ile	Leu	Thr
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<210> 3893
 <211> 1591
 <212> DNA
 <213> Homo sapiens

<400> 3893
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 180
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 240
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 1200

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 1440
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<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

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		20						25				30			
Gly	Glu	Ser	Phe	Val	Met	Tyr	Tyr	Lys	Ser	Lys	Glu	Asn	Cys	Val	Val
	35					40					45				
Asp	Asn	Ile	Lys	Val	Cys	Ser	Asn	Asp	Thr	Gly	Ser	Gly	Lys	Phe	Lys
	50				55					60					
Cys	Val	Cys	Ile	Thr	Met	Arg	Val	Pro	Arg	Asn	Pro	Thr	Ile	Gly	Asp
65					70				75					80	
Lys	Phe	Ala	Ser	Arg	His	Gly	Gln	Lys	Gly	Ile	Leu	Ser	Arg	Leu	Trp
			85					90						95	
Pro	Ala	Glu	Asp	Met	Pro	Phe	Thr	Glu	Ser	Gly	Met	Val	Pro	Asp	Ile
		100						105					110		
Leu	Phe	Asn	Pro	His	Gly	Phe	Pro	Ser	Arg	Met	Thr	Ile	Gly	Met	Leu
		115					120					125			
Ile	Glu	Ser	Met	Ala	Gly	Lys	Ser	Ala	Ala	Leu	His	Gly	Leu	Cys	His
	130					135						140			
Asp	Ala	Thr	Pro	Phe	Ile	Phe	Ser	Glu	Glu	Asn	Ser	Ala	Leu	Glu	Tyr
145					150					155				160	
Phe	Gly	Glu	Met	Leu	Lys	Ala	Ala	Gly	Tyr	Asn	Phe	Tyr	Gly	Thr	Glu
			165					170						175	
Arg	Leu	Tyr	Ser	Gly	Ile	Ser	Gly	Leu	Glu	Leu	Glu	Ala	Asp	Ile	Phe
		180						185					190		
Ile	Gly	Val	Val	Tyr	Tyr	Gln	Arg	Leu	Arg	His	Met	Val	Ser	Asp	Lys
		195					200						205		
Phe	Gln	Val	Arg	Thr	Thr	Gly	Ala	Arg	Asp	Arg	Val	Thr	Asn	Gln	Pro
	210					215						220			
Ile	Gly	Gly	Arg	Asn	Val	Gln	Gly	Gly	Ile	Arg	Phe	Gly	Glu	Met	Glu
225				230						235				240	
Arg	Asp	Ala	Leu	Leu	Ala	His	Gly	Thr	Ser	Phe	Leu	Leu	His	Asp	Arg
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<210> 3895
<211> 1227
<212> DNA
<213> Homo sapiens
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1227

<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

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Leu	Lys	Gln	His	Lys	Glu	Ala	Lys	Arg	Phe	Glu	Ile	Ala	Arg	Ser	Gln
		20					25					30			
Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Gln	Pro	Ser
	35						40				45				
Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg	Lys	Asn
50					55					60					
Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln	Leu	Glu
65				70				75						80	
Asn	Thr	Ile	Ser	Glu	Met	Ser	Pro	Lys	Ala	Leu	Val	Asp	Thr	Ser	Cys
			85					90					95		
Ser	Ser	Asn	Arg	Asp	Ser	Val	Ala	Ser	Ser	Ser	His	Ile	Ala	Gln	Glu
		100					105					110			
Ala	Ser	Pro	Arg	Pro	Leu	Leu	Val	Pro	Asp	Glu	Gly	Pro	Thr	Ala	Leu
	115					120					125				
Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser	Ser	Gly
130				135						140					
Ala	Pro	Gln	Thr	Ser	Arg	Met	Pro	Val	Pro	Met	Ser	Ala	Lys	Asn	Arg
145				150				155						160	
Pro	Gly	Thr	Leu	Asp	Lys	Pro	Gly	Lys	Gln	Ser	Lys	Leu	Gln	Asp	Pro
			165				170						175		
Arg	Gln	Tyr	Arg	Gln	Ala	Asn	Gly	Ser	Ala	Lys	Lys	Ser	Gly	Gly	Asp
	180					185						190			
Phe	Lys	Pro	Thr	Ser	Pro	Ser	Leu	Pro	Ala	Ser	Lys	Ile	Pro	Ala	Leu
	195					200					205				
Ser	Pro	Ser	Ser	Gly	Lys	Ser	Ser	Ser	Leu	Pro	Ser	Ser	Ser	Gly	Asp
210				215				220							
Ser	Ser	Asn	Leu	Pro	Asn	Pro	Pro	Ala	Thr	Lys	Pro	Ser	Ile	Ala	Ser
225			230					235						240	
Asn	Pro	Leu	Ser	Pro	Gln	Thr	Gly	Pro	Pro	Ala	His	Ser	Ala	Ser	Leu
			245				250					255			
Ile	Pro	Ser	Val	Ser	Asn	Gly	Ser	Leu	Lys	Phe	Gln	Ser	Leu	Thr	His
	260					265						270			
Thr	Gly	Lys	Gly	His	His	Leu	Ser	Phe	Ser	Pro	Gln	Ser	Gln	Asn	Gly
	275					280					285				
Arg	Ala	Pro	Pro	Pro	Leu	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser	Pro	Ala
	290				295					300					
Ser	Ser	Val	Ser	Leu	Asn	Gln	Gly	Ala	Lys	Gly	Thr	Arg	Thr	Ile	His
305				310				315						320	
Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser	Ser	Lys
			325				330					335			
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340

345

<210> 3897
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 3897
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<210> 3898
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 3898
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 35 40 45
 Cys Val Gln Asp Val Ser Glu Thr Pro Val Pro Leu Pro Val Pro Leu
 50 55 60
 Ser Val Pro Leu Ser Thr Ser Val Thr Ser Ser Leu Arg Gly Ser His
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 Pro Thr Leu Cys His Cys His Ile Phe Leu Cys Ala Gln Pro Leu Pro
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<210> 3899
 <211> 1092
 <212> DNA
 <213> Homo sapiens

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3044

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 360
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<210> 3900

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3900

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			20					25					30		
Gly	Arg	Ser	Gly	Leu	Glu	Pro	Gly	Thr	Phe	Arg	Lys	Met	Ala	Ala	Ala
			35				40					45			
Arg	Pro	Ser	Leu	Gly	Arg	Val	Leu	Pro	Gly	Ser	Ser	Val	Leu	Phe	Leu
			50			55					60				
Cys	Asp	Met	Gln	Glu	Lys	Phe	Arg	His	Asn	Ile	Ala	Tyr	Phe	Pro	Gln
65					70					75				80	
Ile	Val	Ser	Val	Ala	Ala	Arg	Met	Leu	Lys	Val	Ala	Arg	Leu	Leu	Glu
				85					90					95	
Val	Pro	Val	Met	Leu	Thr	Glu	Gln	Tyr	Pro	Gln	Gly	Leu	Gly	Pro	Thr

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      130      135      140
Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln Ala Cys Ile Leu
      145      150      155      160
Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln Val His Val Val
      165      170      175
Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg Leu Val Ala Leu
      180      185      190
Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr Ser Glu Gly Leu
      195      200      205
Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln Phe Lys Glu Ile
      210      215      220
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<210> 3901

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 3901

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840

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<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

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Val	His	Pro	Glu	Met	Pro	Pro	Gly	Val	Arg	Leu	Ser	Arg	Gly	Leu	Val
			20					25					30		
Trp	Ala	Ala	Thr	Thr	Ala	Arg	Asn	Ala	Leu	Val	Val	Ser	Phe	Ala	Ala
		35					40					45			
Leu	Val	Ala	Tyr	Ser	Phe	Glu	Val	Thr	Gly	Tyr	Gln	Pro	Phe	Ile	Leu
	50					55					60				
Thr	Gly	Glu	Thr	Ala	Glu	Gly	Leu	Pro	Pro	Val	Arg	Ile	Pro	Pro	Phe
65					70					75					80
Ser	Val	Thr	Thr	Ala	Asn	Gly	Thr	Ile	Ser	Phe	Thr	Glu	Met	Val	Gln
				85						90				95	
Asp	Met	Gly	Ala	Gly	Leu	Ala	Val	Val	Pro	Leu	Met	Gly	Leu	Leu	Glu
			100					105					110		
Ser	Ile	Ala	Val	Ala	Lys	Ala	Phe	Ala	Ser	Gln	Asn	Asn	Tyr	Arg	Ile
	115					120						125			
Asp	Ala	Asn	Gln	Glu	Leu	Leu	Ala	Ile	Gly	Leu	Thr	Asn	Met	Leu	Gly
	130					135					140				
Ser	Leu	Val	Ser	Ser	Tyr	Pro	Val	Thr	Gly	Ser	Phe	Gly	Arg	Thr	Ala
145					150					155					160
Val	Asn	Ala	Gln	Ser	Gly	Val	Cys	Thr	Pro	Ala	Gly	Gly	Leu	Val	Thr
			165						170					175	
Gly	Val	Leu	Val	Leu	Leu	Ser	Leu	Asp	Tyr	Leu	Thr	Ser	Leu	Phe	Tyr
		180						185					190		
Tyr	Ile	Pro	Lys	Ser	Ala	Leu	Ala	Ala	Val	Ile	Ile	Met	Ala	Val	Ala
		195					200					205			
Pro	Leu	Phe	Asp	Thr	Lys	Ile	Phe	Arg	Thr	Leu	Trp	Arg	Val	Lys	Arg
	210					215					220				
Leu	Asp	Leu	Leu	Pro	Leu	Cys	Val	Thr	Phe	Leu	Leu	Cys	Phe	Trp	Glu
225					230					235				240	
Val	Gln	Tyr	Gly	Ile	Leu	Ala	Gly	Ala	Leu	Val	Ser	Leu	Leu	Met	Leu

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                245                250                255
Leu His Ser Ala Arg Pro Glu Thr Lys Val Ser Glu Gly Pro Val
                260                265                270
Leu Val Leu Gln Pro Ala Ser Gly Leu Ser Phe Pro Val Leu Cys Pro
                275                280                285
Pro Leu Pro Ala Val Gln Asp Pro Lys Thr Leu Ser Pro Thr Leu Ser
                290                295                300
Ser Pro Gln Gly Cys Arg His Leu
305                310

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<210> 3903

<211> 598

<212> DNA

<213> Homo sapiens

<400> 3903

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180
gacatcctca tccacaatgc cggtatcagt tcctgtggcc ggaccctga ggcgtttaac
240
ctgctgcttc gggatgaacca tatcggtccc tttctgctga cacatctgct gctgccttgc
300
ctgaaggcat gtgcccctag ccgcgtggtg gtggtagcct cagctgcccc ctgtcgggga
360
cgtcttgact tcaaacgcct ggaccgcccc gtggtgctgg cggcaggagc tgcggcatat
420
gctgacacta agctggctaa tgtactgttt gcccgggagc tcgccaacca gcttgaggcc
480
actggcgta cctgctatgc agcccaccca gggcctgtga actcggagct gttcctgcgc
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<210> 3904

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3904

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Ala Arg Arg Gly Ala Arg Val Val Leu Ala Cys Arg Ser Gln Glu Arg
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Gly Glu Ala Ala Phe Asp Leu Arg Gln Glu Ser Gly Asn Asn Glu
20          25          30
Val Ile Phe Met Ala Leu Asp Leu Ala Ser Leu Ala Ser Val Arg Ala
35          40          45
Phe Ala Thr Ala Phe Leu Ser Ser Glu Pro Arg Leu Asp Ile Leu Ile
50          55          60
His Asn Ala Gly Ile Ser Ser Cys Gly Arg Thr Arg Glu Ala Phe Asn
65          70          75          80
Leu Leu Leu Arg Val Asn His Ile Gly Pro Phe Leu Leu Thr His Leu

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      85              90              95
Leu Leu Pro Cys Leu Lys Ala Cys Ala Pro Ser Arg Val Val Val Val
      100              105              110
Ala Ser Ala Ala His Cys Arg Gly Arg Leu Asp Phe Lys Arg Leu Asp
      115              120              125
Arg Pro Val Val Leu Ala Ala Gly Ala Ala Ala Tyr Ala Asp Thr Lys
      130              135              140
Leu Ala Asn Val Leu Phe Ala Arg Glu Leu Ala Asn Gln Leu Glu Ala
145              150              155              160
Thr Gly Val Thr Cys Tyr Ala Ala His Pro Gly Pro Val Asn Ser Glu
      165              170              175
Leu Phe Leu Arg His Val Pro Gly Trp Leu Arg Pro Leu Leu Arg Pro
      180              185              190
Leu Ala Trp Leu Val Pro Arg
      195

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<210> 3905

<211> 370

<212> DNA

<213> Homo sapiens

<400> 3905

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120
gccaccggcc agtttcgctg ccgcgtgccc ggcgcctact tcttctcctt cacggctggc
180
aaggccccgc acaagagccc gtcggtgatg ctggtgcgaa accgcgacga ggtgcaggcg
240
ctggccttcg acgagcagcg gcggccaggc gcgcggcgcg cagccagcca gagcgccatg
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370

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<210> 3906

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3906

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Leu Glu Gly Thr Ser Glu Met Ala Val Thr Phe Asp Lys Val Tyr Val
      20              25              30
Asn Ile Gly Gly Asp Phe Asp Val Ala Thr Gly Gln Phe Arg Cys Arg
      35              40              45
Val Pro Gly Ala Tyr Phe Phe Ser Phe Thr Ala Gly Lys Ala Pro His
      50              55              60
Lys Ser Pro Ser Val Met Leu Val Arg Asn Arg Asp Glu Val Gln Ala
65              70              75              80
Leu Ala Phe Asp Glu Gln Arg Arg Pro Gly Ala Arg Arg Ala Ala Ser

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	85		90		95
Gln Ser Ala Met Leu Gln Leu Asp Tyr Gly Asp Thr Val Trp Leu Arg					
	100		105		110
Leu His Gly Ala Pro Gln Tyr Ala Leu Gly Ala					
	115		120		

<210> 3907

<211> 4474

<212> DNA

<213> Homo sapiens

<400> 3907

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120
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180
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240
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300
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360
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420
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480
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600
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1260

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4474

<210> 3908
 <211> 1373
 <212> PRT
 <213> Homo sapiens

<400> 3908
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 Trp Pro Gln Arg Ala Ala Lys Ile Ala Gly Pro Gly Arg Lys Arg Arg
 20 25 30
 Ser Pro Asp Pro Asp Ala Val Ala Asp Pro Gly Ala Leu Trp Leu Ser
 35 40 45
 Thr Lys Arg Leu Lys Met Ser Gly Gly Ala Ser Ala Thr Gly Pro Arg
 50 55 60
 Arg Gly Pro Pro Gly Leu Glu Asp Thr Thr Ser Lys Lys Lys Gln Lys
 65 70 75 80
 Asp Arg Ala Asn Gln Glu Ser Lys Asp Gly Asp Pro Arg Lys Glu Thr
 85 90 95
 Gly Ser Arg Tyr Val Ala Gln Ala Gly Leu Glu Pro Leu Ala Ser Gly
 100 105 110
 Asp Pro Ser Ala Ser Ala Ser His Ala Ala Gly Ile Thr Gly Ser Arg
 115 120 125
 His Arg Thr Arg Leu Phe Phe Pro Ser Ser Ser Gly Ser Ala Ser Thr
 130 135 140
 Pro Gln Glu Glu Gln Thr Lys Glu Gly Ala Cys Glu Asp Pro His Asp
 145 150 155 160
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 165 170 175
 Ala Glu Glu Val Ile Val Lys Leu Arg Val Gly Val Gly Pro Leu Gln
 180 185 190
 Leu Glu Asp Val Asp Ala Ala Phe Thr Asp Thr Asp Cys Val Val Arg
 195 200 205
 Phe Ala Gly Gly Gln Gln Trp Gly Gly Val Phe Tyr Ala Glu Ile Lys
 210 215 220
 Ser Ser Cys Ala Lys Val Gln Thr Arg Lys Gly Ser Leu Leu His Leu
 225 230 235 240
 Thr Leu Pro Lys Lys Val Pro Met Leu Thr Trp Pro Ser Leu Leu Val
 245 250 255
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 260 265 270
 Leu Leu Gly Ser Glu Glu Asn Leu Ala Pro Leu Ala Gly Glu Lys Ala
 275 280 285
 Val Pro Pro Gly Asn Asp Pro Val Ser Pro Ala Met Val Arg Ser Arg
 290 295 300
 Asn Pro Gly Lys Asp Asp Cys Ala Lys Glu Glu Met Ala Val Ala Ala
 305 310 315 320
 Asp Ala Ala Thr Leu Val Asp Gly Lys Glu Pro Glu Ser Met Val Asn
 325 330 335
 Leu Ala Phe Val Lys Asn Asp Ser Tyr Glu Lys Gly Pro Asp Ser Val
 340 345 350
 Val Val His Val Tyr Val Lys Glu Ile Cys Arg Asp Thr Ser Arg Val
 355 360 365
 Leu Phe Arg Glu Gln Asp Phe Thr Leu Ile Phe Gln Thr Arg Asp Gly

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Asn Phe Leu Arg Leu His Pro Gly Cys Gly Pro His Thr Thr Phe Arg
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Trp Gln Val Lys Leu Arg Asn Leu Ile Glu Pro Glu Gln Cys Thr Phe
      405              410              415
Cys Phe Thr Ala Ser Arg Ile Asp Ile Cys Leu Arg Lys Arg Gln Ser
      420              425              430
Gln Arg Trp Gly Gly Leu Glu Ala Pro Ala Ala Arg Val Gly Gly Ala
      435              440              445
Lys Val Ala Val Pro Thr Gly Pro Thr Pro Leu Asp Ser Thr Pro Pro
      450              455              460
Gly Gly Ala Pro His Pro Leu Thr Gly Gln Glu Glu Ala Arg Ala Val
465              470              475              480
Glu Lys Asp Lys Ser Lys Ala Arg Ser Glu Asp Thr Gly Leu Asp Ser
      485              490              495
Val Ala Thr Arg Thr Pro Met Glu His Val Thr Pro Lys Pro Glu Thr
      500              505              510
His Leu Ala Ser Pro Lys Pro Thr Cys Met Val Pro Pro Met Pro His
      515              520              525
Ser Pro Val Ser Gly Asp Ser Val Glu Glu Glu Glu Glu Glu Lys
      530              535              540
Lys Val Cys Leu Pro Gly Phe Thr Gly Leu Val Asn Leu Gly Asn Thr
545              550              555              560
Cys Phe Met Asn Ser Val Ile Gln Ser Leu Ser Asn Thr Arg Glu Leu
      565              570              575
Arg Asp Phe Phe His Asp Arg Ser Phe Glu Ala Glu Ile Asn Tyr Asn
      580              585              590
Asn Pro Leu Gly Thr Gly Gly Arg Leu Ala Ile Gly Phe Ala Val Leu
      595              600              605
Leu Arg Ala Leu Trp Lys Gly Thr His His Ala Phe Gln Pro Ser Lys
      610              615              620
Leu Lys Ala Ile Val Ala Ser Lys Ala Ser Gln Phe Thr Gly Tyr Ala
625              630              635              640
Gln His Asp Ala Gln Glu Phe Met Ala Phe Leu Leu Asp Gly Leu His
      645              650              655
Glu Asp Leu Asn Arg Ile Gln Asn Lys Pro Tyr Thr Glu Thr Val Asp
      660              665              670
Ser Asp Gly Arg Pro Asp Glu Val Val Ala Glu Glu Ala Trp Gln Arg
      675              680              685
His Lys Met Arg Asn Asp Ser Phe Ile Val Asp Leu Phe Gln Gly Gln
      690              695              700
Tyr Lys Ser Lys Leu Val Cys Pro Val Cys Ala Lys Val Ser Ile Thr
705              710              715              720
Phe Asp Pro Phe Leu Tyr Leu Pro Val Pro Leu Pro Gln Lys Gln Lys
      725              730              735
Val Leu Pro Val Phe Tyr Phe Ala Arg Glu Pro His Ser Lys Pro Ile
      740              745              750
Lys Phe Leu Val Ser Val Ser Lys Glu Asn Ser Thr Ala Ser Glu Val
      755              760              765
Leu Asp Ser Leu Ser Gln Ser Val His Val Lys Pro Glu Asn Leu Arg
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Leu Ala Glu Val Ile Lys Asn Arg Phe His Arg Val Phe Leu Pro Ser
785              790              795              800
His Ser Leu Asp Thr Val Ser Pro Ser Asp Thr Leu Leu Cys Phe Glu

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805 810 815
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 835 840 845
 Cys Gln Arg Lys Gln Gln Ser Glu Asp Glu Lys Leu Lys Arg Cys Thr
 850 855 860
 Arg Cys Tyr Arg Val Gly Tyr Cys Asn Gln Leu Cys Gln Lys Thr His
 865 870 875 880
 Trp Pro Asp His Lys Gly Leu Cys Arg Pro Glu Asn Ile Gly Tyr Pro
 885 890 895
 Phe Leu Val Ser Val Pro Ala Ser Arg Leu Thr Tyr Ala Arg Leu Ala
 900 905 910
 Gln Leu Leu Glu Gly Tyr Ala Arg Tyr Ser Val Ser Val Phe Gln Pro
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 Pro Phe Gln Pro Gly Arg Met Ala Leu Glu Ser Gln Ser Pro Gly Cys
 930 935 940
 Thr Thr Leu Leu Ser Thr Gly Ser Leu Glu Ala Gly Asp Ser Glu Arg
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 Ile Glu Val Gly Ser Leu Pro Ala Gly Glu Arg Val Ser Arg Pro Glu
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 1155 1160 1165
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 Ile Gly Gly His Tyr Thr Ala Cys Ala Arg Leu Pro Asn Asp Arg Ser
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 Ser Gln Arg Ser Asp Val Gly Trp Arg Leu Phe Asp Asp Ser Thr Val

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1250	1255	1260
Phe Tyr Arg Arg Arg Asn Ser Pro Val Glu Arg Pro Pro Arg Ala Gly		
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His Ser Glu His His Pro Asp Leu Gly Pro Ala Ala Glu Ala Ala Ala		1280
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Ser Gln Ala Ser Arg Ile Trp Gln Glu Leu Glu Ala Glu Glu Glu Pro		1295
	1300	1305
Val Pro Glu Gly Ser Gly Pro Leu Gly Pro Trp Gly Pro Gln Asp Trp		1310
	1315	1320
Val Gly Pro Leu Pro Arg Gly Pro Thr Thr Pro Asp Glu Gly Cys Leu		1325
	1330	1335
Arg Tyr Phe Val Leu Gly Thr Val Ala Ala Leu Val Ala Leu Val Leu		1340
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<211> 2704

<212> DNA

<213> Homo sapiens

<400> 3909

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		20					25					30			
Arg	Leu	Asn	His	Leu	Ser	Phe	Ala	Glu	Leu	Leu	Lys	Pro	Phe	Ser	Arg
		35				40					45				
Leu	Thr	Ser	Glu	Val	His	Met	Arg	Asp	Pro	Asn	Asn	Gln	Leu	His	Val
	50				55					60					
Ile	Lys	Asn	Leu	Lys	Ile	Ala	Val	Ser	Asn	Ile	Val	Thr	Gln	Pro	Pro
65			70						75				80		
Gln	Pro	Gly	Ala	Ile	Arg	Lys	Leu	Leu	Asn	Asp	Val	Val	Ser	Gly	Ser
		85					90					95			
Gln	Pro	Ala	Glu	Gly	Leu	Val	Ala	Asn	Val	Ile	Thr	Ala	Gly	Asp	Tyr
	100						105					110			
Asp	Leu	Asn	Ile	Ser	Ala	Thr	Thr	Pro	Trp	Phe	Glu	Ser	Tyr	Arg	Glu
	115					120					125				
Thr	Phe	Leu	Gln	Ser	Met	Pro	Ala	Ser	Asp	His	Glu	Phe	Leu	Asn	His
	130				135					140					
Tyr	Leu	Ala	Cys	Met	Leu	Val	Ala	Ser	Ser	Ser	Glu	Ala	Glu	Pro	Val
145			150						155				160		
Glu	Gln	Phe	Ser	Lys	Leu	Ser	Gln	Glu	Gln	His	Arg	Ile	Gln	His	Asn
		165					170					175			
Ser	Asp	Tyr	Ser	Tyr	Pro	Lys	Trp	Phe	Ile	Pro	Asn	Thr	Leu	Lys	Tyr
	180					185					190				
Tyr	Val	Leu	Leu	His	Asp	Val	Ser	Ala	Gly	Asp	Glu	Gln	Arg	Ala	Glu
	195					200					205				
Ser	Ile	Tyr	Glu	Glu	Met	Lys	Gln	Lys	Tyr	Gly	Thr	Gln	Gly	Cys	Tyr

210	215	220
Leu Leu Lys Ile Asn Ser Arg Thr Ser Asn Arg Ala Ser Asp Glu Gln		
225	230	235
Ile Pro Asp Pro Trp Ser Gln Tyr Leu Gln Lys Asn Ser Ile Gln Asn		240
	245	250
Gln Glu Ser Tyr Glu Asp Gly Pro Cys Thr Ile Thr Ser Asn Lys Asn		255
	260	265
Ser Asp Asn Asn Leu Leu Ser Leu Asp Gly Leu Asp Asn Glu Val Lys		270
	275	280
Asp Gly Leu Pro Asn Asn Phe Arg Ala His Pro Leu Gln Leu Glu Gln		285
	290	295
Ser Ser Asp Pro Ser Asn Ser Ile Asp Gly Pro Asp His Leu Arg Ser		300
305	310	315
Ala Ser Ser Leu His Glu Thr Lys Lys Gly Asn Thr Gly Ile Ile His		320
	325	330
Gly Ala Cys Leu Thr Leu Thr Asp His Asp Arg Ile Arg Gln Phe Ile		335
	340	345
Gln Lys Phe Thr Phe Arg Gly Leu Leu Pro His Ile Glu Lys Thr Ile		350
	355	360
Arg Gln Leu Asn Asp Gln Leu Ile Ser Arg Lys Gly Leu Ser Arg Ser		365
	370	375
Leu Phe Ser Ala Thr Lys Lys Trp Phe Ser Gly Ser Lys Val Pro Glu		380
385	390	395
Lys Ser Ile Asn Asp Leu Lys Asn Thr Ser Gly Leu Leu Tyr Pro Pro		400
	405	410
Glu Ala Pro Glu Leu Gln Ile Arg Lys Met Ala Asp Leu Cys Phe Leu		415
	420	425
Val Gln His Tyr Asp Leu Ala Tyr Ser Cys Tyr His Thr Ala Lys Lys		430
	435	440
Asp Phe Leu Asn Asp Gln Ala Met Leu Tyr Ala Ala Gly Ala Leu Glu		445
	450	455
Met Ala Ala Val Ser Ala Phe Leu Gln Pro Gly Ala Pro Arg Pro Tyr		460
465	470	475
Pro Ala His Tyr Met Asp Thr Ala Ile Gln Thr Tyr Arg Asp Ile Cys		480
	485	490
Lys Asn Met Val Leu Ala Glu Arg Cys Val Leu Leu Ser Ala Glu Leu		495
	500	505
Leu Lys Ser Gln Ser Lys Tyr Ser Glu Ala Ala Ala Leu Leu Ile Arg		510
	515	520
Leu Thr Ser Glu Asp Ser Asp Leu Arg Ser Ala Leu Leu Glu Gln		525
	530	535
Ala Ala His Cys Phe Ile Asn Met Lys Ser Pro Met Val Arg Lys Tyr		540
545	550	555
Ala Phe His Met Ile Leu Ala Gly His Arg Phe Ser Lys Ala Gly Gln		560
	565	570
Lys Lys His Ala Leu Arg Cys Tyr Cys Gln Ala Met Gln Val Tyr Lys		575
	580	585
Gly Lys Gly Trp Ser Leu Ala Glu Asp His Ile Asn Phe Thr Ile Gly		590
	595	600
Arg Gln Ser Tyr Thr Leu Arg Gln Leu Asp Asn Ala Val Ser Ala Phe		605
	610	615
Arg His Ile Leu Ile Asn Glu Ser Lys Gln Ser Ala Ala Gln Gln Gly		620
625	630	635
Ala Phe Leu Arg Glu Tyr Leu Tyr Val Tyr Lys Asn Val Ser Gln Leu		640

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        645                650                655
Ser Pro Asp Gly Pro Leu Pro Gln Leu Pro Leu Pro Tyr Ile Asn Ser
        660                665                670
Ser Ala Thr Arg Val Phe Phe Gly His Asp Arg Arg Pro Ala Asp Gly
        675                680                685
Glu Lys Gln Ala Ala Thr His Val Ser Leu Asp Gln Glu Tyr Asp Ser
        690                695                700
Glu Ser Ser Gln Gln Trp Arg Glu Leu Glu Glu Gln Val Val Ser Val
705                710                715                720
Val Asn Lys Gly Val Ile Pro Ser Asn Phe His Pro Thr Gln Tyr Cys
        725                730                735
Leu Asn Ser Tyr Ser Asp Asn Ser Arg Phe Pro Leu Ala Val Val Glu
        740                745                750
Glu Pro Ile Thr Val Glu Val Ala Phe Arg Asn Pro Leu Lys Val Leu
        755                760                765
Leu Leu Leu Thr Asp Leu Ser Leu Leu Trp Lys Phe His Pro Lys Asp
        770                775                780
Phe Ser Gly Lys Asp Asn Glu Glu Val Lys Gln Leu Val Thr Ser Glu
785                790                795                800
Pro Glu Met Ile Gly Ala Glu Val Ile Ser Glu Phe Leu Ile Asn Gly
        805                810                815
Glu Glu Ser Lys Val Ala Arg Leu Lys Leu Phe Pro His His Ile Gly
        820                825                830
Glu Leu His Ile Leu Gly Val Val Tyr Asn Leu Gly Thr Ile Gln Gly
        835                840                845
Ser Met Thr Val Asp Gly Ile Gly Ala Leu Pro Gly Cys His Thr Gly
        850                855                860
Lys Tyr Ser Leu Ser Met Ser Val Arg Gly Lys Gln Asp Leu Glu Ile
865                870                875                880
Gln Gly Pro Arg Leu Asn Asn Thr Lys Glu Glu Lys Thr Ser Val Lys
        885                890                895
Tyr Gly Pro Asp Arg Arg Leu Asp Pro Ile Ile Thr Glu Glu Met Pro
        900                905                910
Leu Leu Glu Val Phe Phe Ile His Phe Pro Thr Gly Leu Leu Cys Gly
        915                920                925
Glu Ile Arg Lys Ala Tyr Val Glu Phe Val Asn Val Ser Lys Cys Pro
        930                935                940
Leu Thr Gly Leu Lys Val Val Ser Lys Arg Pro Glu Phe Phe Thr Phe
945                950                955                960
Gly Gly Asn Thr Ala Val Leu Thr Pro Leu Ser Pro Ser Ala Ser Glu
        965                970                975
Asn Cys Ser Ala Tyr Lys Thr Val Val Thr Asp Ala Thr Ser Val Cys
        980                985                990
Thr Ala Leu Ile Ser Ser Ala Ser Ser Val Asp Phe Gly Ile Gly Thr
        995                1000                1005
Gly Ser Gln Pro Glu Val Ile Pro Val Pro Leu Pro Asp Thr Val Leu
        1010                1015                1020
Leu Pro Gly Ala Ser Val Gln Leu Pro Met Trp Leu Arg Gly Pro Asp
1025                1030                1035                1040
Glu Glu Gly Val His Glu Ile Asn Phe Leu Phe Tyr Tyr Glu Ser Val
        1045                1050                1055
Lys Lys Gln Pro Lys Ile Arg His Arg Ile Leu Arg His Thr Ala Ile
        1060                1065                1070
Ile Cys Thr Ser Arg Ser Leu Asn Val Arg Ala Thr Val Cys Arg Ser

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1075	1080	1085
Asn Ser Leu Glu Asn Glu Glu Gly Arg Gly Gly Asn Met Leu Val Phe		
1090	1095	1100
Val Asp Val Glu Asn Thr Asn Thr Ser Glu Ala Gly Val Lys Glu Phe		
1105	1110	1115
His Ile Val Gln Val Ser Ser Ser Ser Lys His Trp Lys Leu Gln Lys		
1125	1130	1135
Ser Val Asn Leu Ser Glu Asn Lys Asp Ala Lys Leu Ala Ser Arg Glu		
1140	1145	1150
Lys Gly Lys Phe Cys Phe Lys Ala Ile Arg Cys Glu Lys Glu Glu Ala		
1155	1160	1165
Ala Thr Gln Ser Ser Glu Lys Tyr Thr Phe Ala Asp Ile Ile Phe Gly		
1170	1175	1180
Asn Glu Gln Ile Ile Ser Ser Ala Ser Pro Cys Ala Asp Phe Phe Tyr		
1185	1190	1195
Arg Ser Leu Ser Ser Glu Leu Lys Lys Pro Gln Ala His Leu Pro Val		
1205	1210	1215
His Thr Glu Lys Gln Ser Thr Glu Asp Ala Val Arg Leu Ile Gln Lys		
1220	1225	1230
Cys Ser Glu Val Asp Leu Asn Ile Val Ile Leu Trp Lys Ala Tyr Val		
1235	1240	1245
Val Glu Asp Ser Lys Gln Leu Ile Leu Glu Gly Gln His His Val Ile		
1250	1255	1260
Leu Arg Thr Ile Gly Lys Glu Ala Phe Ser Tyr Pro Gln Lys Gln Glu		
1265	1270	1275
Pro Pro Glu Met Glu Leu Leu Lys Phe Phe Arg Pro Glu Asn Ile Thr		
1285	1290	1295
Val Ser Ser Arg Pro Ser Val Glu Gln Leu Ser Ser Leu Ile Lys Thr		
1300	1305	1310
Ser Leu His Tyr Pro Glu Ser Phe Asn His Pro Phe His Gln Lys Ser		
1315	1320	1325
Leu Cys Leu Val Pro Val Thr Leu Leu Leu Ser Asn Cys Ser Lys Ala		
1330	1335	1340
Asp Val Asp Val Ile Val Asp Leu Arg His Lys Thr Thr Ser Pro Glu		
1345	1350	1355
Ala Leu Glu Ile His Gly Ser Phe Thr Trp Leu Gly Gln Thr Gln Tyr		
1365	1370	1375
Lys Leu Gln Leu Lys Ser Gln Glu Ile His Ser Leu Gln Leu Lys Ala		
1380	1385	1390
Cys Phe Val His Thr Gly Val Tyr Asn Leu Gly Thr Pro Arg Val Phe		
1395	1400	1405
Ala Lys Leu Ser Asp Gln Val Thr Val Phe Glu Thr Ser Gln Gln Asn		
1410	1415	1420
Ser Met Pro Ala Leu Ile Ile Ile Ser Asn Val		
1425	1430	1435

<210> 3915

<211> 1802

<212> DNA

<213> Homo sapiens

<400> 3915

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120
ctgttggaac agacagcagt ggagctggag aagaggcagg agggcaggag cagcacacag
180
acactggaag acagctggag gtatgaggag accagtgaga atgaggcagt agccgaggaa
240
gaggaggagg aggtggagga ggagggagaa gaggatgttt tcaccgagaa agcctcacct
300
gatatggatg ggtacccagc attaaagggtg gacaaagaga ccaacacgga gaccccgcc
360
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420
tttcttcgag ggagcaccat catccgctct aagaccttct cccaggacc ccagagccag
480
tacgtgtgcc ggctgaatcg gagtgatagt gacagctcca ctctgtccaa aaagccacct
540
tttgttcgaa actccctgga gcgacgcagc gtccggatga agcggccgtc cccaccccc
600
cagccttcct cgggtcaagtc gctgcgctcc gagcgtctga tccgtacctc gctggacctg
660
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720
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cagtgggttc gtgaggacga gcgtttccgc ctgctgctga ggatgctgga gaagcggcag
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900
aaggatgtgc acaggctccg aggccagagc tgtaaggaa cccagaaagt tcagtcttcc
960
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1020
gacgtctaata cgccagaaaa gtatttcctt tgttccactg accaggctgt gaacattgac
1080
tgtggctaaa gttatttatg tgggtgtata tgaaggtagt gagtcacaag tcctctagt
1140
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1200
acagaacaaa aacaaaacac acacacacac aaaaacagaa acaaaaaaaa ccagcattaa
1260
aataataaga ttgtatagtt tgtatatatta ggagtgtatt tttgggaaag aaaatttaaa
1320
tgaactaaag cagtattgag ttgctgctct tcttaaaatc gtttagattt tttttggtt
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1500
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1680

cccagtgaag ccactaacat gagtgagggg agggctgtgg ggaactccat tcagttttat
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1800
aa
1802

<210> 3916
<211> 342
<212> PRT
<213> Homo sapiens

<400> 3916
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20 25 30
Ala Ser Thr Asp Ala Val Ser Ala Leu Leu Glu Gln Thr Ala Val Glu
35 40 45
Leu Glu Lys Arg Gln Glu Gly Arg Ser Ser Thr Gln Thr Leu Glu Asp
50 55 60
Ser Trp Arg Tyr Glu Glu Thr Ser Glu Asn Glu Ala Val Ala Glu Glu
65 70 75 80
Glu Glu Glu Glu Val Glu Glu Glu Gly Glu Asp Val Phe Thr Glu
85 90 95
Lys Ala Ser Pro Asp Met Asp Gly Tyr Pro Ala Leu Lys Val Asp Lys
100 105 110
Glu Thr Asn Thr Glu Thr Pro Ala Pro Ser Pro Thr Val Val Arg Pro
115 120 125
Lys Asp Arg Arg Val Gly Thr Pro Ser Gln Gly Pro Phe Leu Arg Gly
130 135 140
Ser Thr Ile Ile Arg Ser Lys Thr Phe Ser Pro Gly Pro Gln Ser Gln
145 150 155 160
Tyr Val Cys Arg Leu Asn Arg Ser Asp Ser Asp Ser Ser Thr Leu Ser
165 170 175
Lys Lys Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg
180 185 190
Met Lys Arg Pro Ser Pro Pro Pro Gln Pro Ser Ser Val Lys Ser Leu
195 200 205
Arg Ser Glu Arg Leu Ile Arg Thr Ser Leu Asp Leu Glu Leu Asp Leu
210 215 220
Gln Ala Thr Arg Thr Trp His Ser Gln Leu Thr Gln Glu Ile Ser Val
225 230 235 240
Leu Lys Glu Leu Lys Glu Gln Leu Glu Gln Ala Lys Ser His Gly Glu
245 250 255
Lys Glu Leu Pro Gln Trp Leu Arg Glu Asp Glu Arg Phe Arg Leu Leu
260 265 270
Leu Arg Met Leu Glu Lys Arg Gln Met Asp Arg Ala Glu His Lys Gly
275 280 285
Glu Leu Gln Thr Asp Lys Met Met Arg Ala Ala Lys Asp Val His
290 295 300
Arg Leu Arg Gly Gln Ser Cys Lys Glu Pro Pro Glu Val Gln Ser Phe
305 310 315 320
Arg Glu Lys Met Ala Phe Phe Thr Arg Pro Arg Met Asn Ile Pro Ala

325
Leu Ser Ala Asp Asp Val
340

330

335

<210> 3917
<211> 597
<212> DNA
<213> Homo sapiens

<400> 3917
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acaggtgtcc ttctaaaata cagcacaagc tacagcctgc gtccagccat aaccaggag
120
taacatcaga aacaggtgag aatgaccact ttaactcacc gggcccgtcg cactgaaata
180
agcaagaact ctgaaaagaa gatggaaagt gaggaagaca gtaattggga gaaaagtcca
240
gacaatgaag attctggaga ctctaaggat atccgcctta ctcttatgga agaagtattg
300
cttctgggac taaaagataa agaggggtac acatctttct ggaatgactg catatcatca
360
ggcctgcgag ggggcacccct gatagagctg gccatgcggg gtccaatcta tctggaaccc
420
ccgaccatgc gtaagaagcg actactagac agaaaggtag tgctaaagtc agacagccca
480
acaggtgatg ttttactgga tgaaactctg aaacacatca aagcaactga acccacagaa
540
actgtccaaa catggataga gctactcact ggtgagacct ggaacccctt caaatta
597

<210> 3918
<211> 152
<212> PRT
<213> Homo sapiens

<400> 3918
Met Thr Thr Leu Thr His Arg Ala Arg Arg Thr Glu Ile Ser Lys Asn
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Ser Glu Lys Lys Met Glu Ser Glu Glu Asp Ser Asn Trp Glu Lys Ser
20 25 30
Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu
35 40 45
Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
50 55 60
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
65 70 75 80
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
85 90 95
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser
100 105 110
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
115 120 125
Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

130	135	140
Glu Thr Trp Asn Pro Phe Lys Leu		
145	150	

<210> 3919
 <211> 1278
 <212> DNA
 <213> Homo sapiens

<400> 3919
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 120
 caggcacagc atccacccag ccccatcaag tcctccagcg ccgactccac tcccagcccc
 180
 accagcagcc tctctagcga agacaagcag cacctggccg tagagctggc cgacaccaag
 240
 gccaggctgc ggcgcgtcag gcaggagctg gaggataaga cagagcagct tgtggacacc
 300
 agacatgagg tggaccagct ggtgctggaa ctgcagaaag ttaagcagga gaacatccag
 360
 ctagcggcag acgcccggtc tgctcgtgcc tatcgagacg agctggattc cctgcgggag
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 aaggcgaacc gcgtggagag gctggagctg gagctgacct gctgcaagga gaagctgcac
 480
 gacgtggact tctacaaggc ccgcatggag gagctgagag aagataatat cattttaatt
 540
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 600
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 720
 gcacagaagc agagcatgaa cgaatctgcc caccttggct gggagctgga gcagctgtcc
 780
 aagaacgcag acttgtcaga cgcctccagg aagtcgtttg tgtttgagct gaacgaatgt
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 900
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 960
 aaggagaacc accagctcag caagaagatt gaaaagttac aaaccagct ggagagagaa
 1020
 aagcagagca accaagatct ggagaccctc agtgaggagc tgatcagaga gaaggagcag
 1080
 ctgcagagtg acatggagac cctgaaggct gacaaagcca ggcagatcaa ggaccttgag
 1140
 caggaaaagg accacctcaa ccgagccatg tggtcgctgc gggagaggtc gcaggtcagc
 1200
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 1260
 gaggccaatg gcaagctt
 1278

<210> 3920

<211> 426

<212> PRT

<213> Homo sapiens

<400> 3920

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      20           25           30
Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Ser Pro
      35           40           45
Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
      50           55           60
Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
      65           70           75           80
Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln
      85           90           95
Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
      100          105          110
Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala
      115          120          125
Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
      130          135          140
Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
      145          150          155          160
Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
      165          170          175
Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
      180          185          190
Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
      195          200          205
Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
      210          215          220
Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
      225          230          235          240
Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
      245          250          255
Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
      260          265          270
Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
      275          280          285
Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp
      290          295          300
Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu
      305          310          315          320
Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
      325          330          335
Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
      340          345          350
Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
      355          360          365
Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

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370	375	380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser		
385	390	395
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His		400
	405	410
Gln Thr Val Thr Glu Ala Asn Gly Lys Leu		415
	420	425

<210> 3921

<211> 413

<212> DNA

<213> Homo sapiens

<400> 3921

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120
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180
tcagtggggc caatcccggc cccagggga gatggatgct gcagggatgt gcaagctgta
240
gagggttcca gagaatgggc ctggcgttct gcaagcctgg caccctcct ggatgctttt
300
ctccagccct tggagcttag gcagtgtagt gttaggatga ttattggatt tcctccacag
360
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413

<210> 3922

<211> 126

<212> PRT

<213> Homo sapiens

<400> 3922

Met Ala Ala Gly Asn Arg Lys Cys Pro Pro Trp Val Leu Lys Asp Pro		
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	20	25
Leu Leu Ala Ser Leu Val Thr Phe Ile His Ala Gly Pro Cys Phe Leu		30
	35	40
Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg		45
	50	55
Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala		60
	65	70
Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg		75
	80	85
Gln Cys Ser Val Arg Met Ile Ile Gly Phe Pro Pro Gln Phe Leu Ala		90
	95	100
His Ser Phe Val Ala Leu Val Thr Ala Phe Cys Asp Asn Ile		105
	110	115
	120	125

<210> 3923

<211> 820

<212> DNA

<213> Homo sapiens

<400> 3923

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120
tcttcttctt cttgctgaag cttctgctcc atctctcgca ggactgggtc tgttggggcc
180
agacccacct cccactgggt ttgtcgcagt tttttaaggg agccattttg ttctaagtgc
240
ttggtcttgc agtgtctttt ccggcctcga cgcaaagaag gaagtggctc ttcacttagg
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<210> 3924

<211> 250

<212> PRT

<213> Homo sapiens

<400> 3924

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Ser Glu Tyr Thr Gly Pro Thr Ser Ala Asp Leu Asp His Phe Pro Ser
             35             40             45
Val Ser Gln Thr Lys Ala Glu Gln Asp Ser Asp Asn Lys Ser Ser Thr
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Glu Ile Pro Leu Glu Thr Cys Cys Ser Ser Glu Leu Lys Gly Gly Gly
             65             70             75             80
Ser Gly Thr Ser Leu Glu Arg Glu Gln Phe Glu Gly Leu Gly Ser Thr
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Pro Asp Ala Lys Leu Asp Lys Thr Cys Ile Ser Arg Ala Met Lys Ile
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Thr Thr Val Asn Ser Val Leu Pro Gln Asn Ser Val Leu Gly Gly Val

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	115		120		125
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145		150		155	160
Arg	Arg Gly Arg Lys Arg His Cys Lys Thr Lys His	Leu Glu Gln Asn			
	165		170		175
Gly	Ser Leu Lys Lys Leu Arg Gln Thr Ser Gly Glu Val Gly Leu Ala				
	180		185		190
Pro	Thr Asp Pro Val Leu Arg Glu Met Glu Gln Lys Leu Gln Gln Glu				
	195		200		205
Glu	Glu Asp Arg Gln Leu Ala Leu Gln Leu Gln Arg Met Phe Asp Asn				
	210		215		220
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<210> 3925

<211> 3296

<212> DNA

<213> Homo sapiens

<400> 3925

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<210> 3926

<211> 683

<212> PRT

<213> Homo sapiens

<400> 3926

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			20					25					30		
Thr	Arg	Pro	Gln	Pro	Val	Leu	Pro	Leu	Leu	Asp	Leu	Asn	Asn	Gln	Ser
		35					40					45			
Val	Gly	Ile	Glu	Gly	Gly	Ala	Arg	Lys	Gly	Val	Ser	Gln	Lys	Asn	Asn
	50					55					60				
Asp	Leu	Thr	Ser	Cys	Cys	Phe	Ser	Asp	Ala	Lys	Thr	Met	Tyr	Glu	Val
65					70					75				80	
Phe	Gln	Arg	Gly	Leu	Ala	Val	Ser	Asp	Asn	Gly	Pro	Cys	Leu	Gly	Tyr
			85						90					95	
Arg	Lys	Pro	Asn	Gln	Pro	Tyr	Arg	Trp	Leu	Ser	Tyr	Lys	Gln	Val	Ser
		100						105					110		
Asp	Arg	Ala	Glu	Tyr	Leu	Gly	Ser	Cys	Leu	Leu	His	Lys	Gly	Tyr	Lys
		115				120					125				
Ser	Ser	Pro	Asp	Gln	Phe	Val	Gly	Ile	Phe	Ala	Gln	Asn	Arg	Pro	Glu
		130				135					140				
Trp	Ile	Ile	Ser	Glu	Leu	Ala	Cys	Tyr	Thr	Tyr	Ser	Met	Val	Ala	Val
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Pro	Leu	Tyr	Asp	Thr	Leu	Gly	Pro	Glu	Ala	Ile	Val	His	Ile	Val	Asn

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Ile Ile Leu Met Asp Pro Phe Asp Asp Asp Leu Lys Gln Arg Gly Glu
210      215      220
Lys Ser Gly Ile Glu Ile Leu Ser Leu Tyr Asp Ala Glu Asn Leu Asp
225      230      235      240
Lys Glu His Phe Arg Lys Pro Val Pro Pro Ser Pro Glu Asp Leu Ser
245      250      255
Val Ile Cys Phe Thr Ser Gly Thr Thr Gly Asp Pro Lys Gly Ala Met
260      265      270
Ile Thr His Gln Asn Ile Val Ser Asn Ala Ala Ala Phe Leu Lys Cys
275      280      285
Val Glu His Ala Tyr Glu Pro Thr Pro Asp Asp Val Ala Ile Ser Tyr
290      295      300
Leu Pro Leu Ala His Met Phe Glu Arg Ile Val Gln Ala Val Val Tyr
305      310      315      320
Ser Cys Gly Ala Arg Val Gly Phe Phe Gln Gly Asp Ile Arg Leu Leu
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Ala Asp Asp Met Lys Thr Leu Lys Pro Thr Leu Phe Pro Ala Val Pro
340      345      350
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355      360      365
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370      375      380
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405      410      415
Val Thr Gly Ala Ala Pro Ile Ser Thr Pro Val Leu Thr Phe Phe Arg
420      425      430
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435      440      445
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450      455      460
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465      470      475      480
Asp Met Asn Tyr Phe Thr Val Asn Asn Glu Gly Glu Val Cys Ile Lys
485      490      495
Gly Thr Asn Val Phe Lys Gly Tyr Leu Lys Asp Pro Glu Lys Thr Gln
500      505      510
Glu Ala Leu Asp Ser Asp Gly Trp Leu His Thr Gly Asp Ile Gly Arg
515      520      525
Trp Leu Pro Asn Gly Thr Leu Lys Ile Ile Asp Arg Lys Lys Asn Ile
530      535      540
Phe Lys Leu Ala Gln Gly Glu Tyr Ile Ala Pro Glu Lys Ile Glu Asn
545      550      555      560
Ile Tyr Asn Arg Ser Gln Pro Val Leu Gln Ile Phe Val His Gly Glu
565      570      575
Ser Leu Arg Ser Ser Leu Val Gly Val Val Val Pro Asp Thr Asp Val
580      585      590
Leu Pro Ser Phe Ala Ala Lys Leu Gly Val Lys Gly Ser Phe Glu Glu

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595	600	605
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Lys Ile Gly Lys Glu Ser Gly Leu Lys Thr Phe Glu Gln Val Lys Ala		
625	630	635
Ile Phe Leu His Pro Glu Pro Phe Ser Ile Glu Asn Gly Leu Leu Thr		640
645	650	655
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<210> 3927

<211> 3197

<212> DNA

<213> Homo sapiens

<400> 3927

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<210> 3928

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3928

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			20					25					30		
Asp	Ser	Ser	Ser	Arg	Arg	Arg	Arg	Ser	Cys	Cys	Thr	Gly	Ser	Leu	Gly
			35				40					45			
Pro	Met	Pro	Arg	Leu	Pro	Ser	Leu	Trp	Pro	Leu	Ser	Leu	Pro	Leu	Arg
	50					55					60				
Ser	Leu	Ser	Ser	Pro	His	Arg	Val	Gln	Gly	Leu	Gly	Pro	Pro	Arg	Arg
65					70				75					80	
Leu	Lys	Ser	Gln	Leu	Leu	Pro	Arg	Phe	Phe	Trp	Arg	Arg	Gln	Gln	Glu
			85					90					95		
Pro	Leu	Ser	Ser	Phe	Pro	Gly	Arg	Asn	Glu	Gly	Gly	Ser	Glu	Met	Glu
			100				105						110		
Ile	Leu	Gly	Val	Cys	Pro	Val	Ser	Pro	Gly	Ala	Leu	Ser	Tyr	Met	Glu
		115					120					125			
Ser	Pro	Thr	Gly	Phe	Trp	Arg	Pro	Arg	Glu	Ala	Ser	Ser	Leu	Glu	Leu
	130					135					140				
Ala	Lys	Gly	Ile	Ser	Lys	Arg	Arg	His	Phe	Leu	Pro	Ala	Pro	Ala	Leu
145					150					155					160
Cys	Pro	Asn	Pro	Arg	Ser	Ser	Glu	Ala	Phe	Pro	Gly	Ala	Val	Cys	Val
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Thr	Leu	Ala	Ile												
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<210> 3929

<211> 470

<212> DNA

<213> Homo sapiens

<400> 3929

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<210> 3930

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3930

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Pro	Pro	Arg	Cys	Ala	Gly	Arg	Ser	Ala	Pro	Leu	Ser	Gly	Pro	Asp	Ser
		20					25					30			
Gln	Ser	Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu
	35					40					45				
Asn	Thr	Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg
	50				55					60					
Arg	Arg	Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu
65				70				75					80		
Leu	Gly	Ser	Cys	Arg	Cys	Gly	Tyr	Val	Phe	Cys	Met	Leu	His	Arg	Leu
		85				90						95			
Pro	Glu	Gln	His	Asp	Cys	Thr	Phe	Asp	His	Met	Gly	Val	Ala	Gly	Arg
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Ser	His	His													
		115													

<210> 3931

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 3931

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 120
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 180

gcattctata atttcaaag aaatctatac tttaaaaaca attaatgtca aattttgtca
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<211> 293

<212> PRT

<213> Homo sapiens

<400> 3932

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<211> 4082

<212> DNA

<213> Homo sapiens

<400> 3933

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<212> PRT

<213> Homo sapiens

<400> 3934

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 65           70           75           80
Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
 85           90           95
Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
 100          105          110
Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
 115          120          125
Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
 130          135          140
Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
 145          150          155          160
Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
 165          170          175
Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
 180          185          190
Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
 195          200          205
Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
 210          215          220
Gly Gly Gly Asp Ser Leu Ser Arg Glu Gly Gly Trp Gly Gly Arg Ile
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<212> DNA

<213> Homo sapiens

<400> 3937

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 Lys Glu Gln Gly Gly Gly Gly Gln Asp Pro Ala Ala Ile Ala Gly His
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 Thr Gly Trp Leu Ala Ala Lys Ala Ala Pro Ala Gly Gly His Arg Glu
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 120

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<210> 3940

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3940

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Thr	Asp	Arg	Gln	Thr	Gly	Lys	Val	Arg	Trp	Lys	His	Thr	Glu	Asp	Glu
			20					25				30			
Arg	Asp	Arg	Gln	Trp	Glu	Ala	Glu	Leu	Lys	Thr	Val	Lys	Glu	Arg	Ala
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<210> 3941

<211> 2077

<212> DNA

<213> Homo sapiens

<400> 3941

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 480
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2077

<210> 3942

<211> 89
 <212> PRT
 <213> Homo sapiens

<400> 3942
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 20 25 30
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 35 40 45
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala
 50 55 60
 Leu Leu Gly Ser Pro Ala Ser Val Ser Gly Thr Gly Gly Thr Asp Met
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 85

<210> 3943
 <211> 1524
 <212> DNA
 <213> Homo sapiens

<400> 3943
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 120
 gggaagccgc agccgcagga cgaggacgac gcggaggagg aggaggagga ggatgagctg
 180
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 240
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 360
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 420
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 480
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 540
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 720
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 900

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 1020
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 1080
 gtgctttatt taaaagaggt gacaaagttc ctggctctcg tttgctttgt cagagaggaa
 1140
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 1260
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<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

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Arg	Leu	Gly	Pro	Thr	Pro	Gly	Pro	Pro	Pro	Ser	Pro	Gly	Arg	Pro	Ala
			20					25					30		
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
		35					40				45				
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala
	50					55				60					
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
65					70				75					80	
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
			85					90					95		
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
		100					105					110			
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
		115					120					125			
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
	130					135				140					
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
145				150					155					160	
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
			165					170					175		
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
		180					185					190			
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn

195				200				205							
Phe	Glu	Val	Phe	Ile	His	Lys	Val	Asp	Gly	Leu	Ser	Asp	Asp	His	Lys
210				215				220							
Ile	Glu	Thr	Gln	Arg	Asp	Ile	His	Gln	Arg	Ala	Asn	Asp	Asp	Leu	Ala
225				230				235				240			
Asp	Ala	Gly	Leu	Glu	Lys	Ile	His	Leu	Ser	Phe	Tyr	Leu	Thr	Ser	Ile
				245				250				255			
Tyr	Asp	His	Ser	Ile	Phe	Glu	Ala	Phe	Ser	Lys	Val	Val	Gln	Lys	Leu
260				265				270							
Ile	Pro	Gln	Leu	Pro	Thr	Leu	Glu	Asn	Leu	Leu	Asn	Ile	Phe	Ile	Ser
275				280				285							
Asn	Ser	Gly	Ile	Glu	Lys	Ala	Phe	Leu	Phe	Asp	Val	Val	Ser	Lys	Ile
290				295				300							
Tyr	Ile	Ala	Thr	Asp	Ser	Thr	Pro	Val	Asp	Met	Gln	Thr	Tyr	Glu	Leu
305				310				315				320			
Cys	Cys	Asp	Met	Ile	Asp	Val	Val	Ile	Asp	Ile	Ser	Cys	Ile	Tyr	Gly
				325				330				335			
Leu	Lys	Glu	Asp	Gly	Ala	Gly	Thr	Pro	Tyr	Asp	Lys	Glu	Ser	Thr	Ala
340				345				350							
Ile	Ile	Lys	Leu	Asn	Asn	Thr	Thr	Val	Leu	Tyr	Leu	Lys	Glu	Val	Thr
355				360				365							
Lys	Phe	Leu	Ala	Leu	Val	Cys	Phe	Val	Arg	Glu	Glu	Ser	Phe	Glu	Arg
370				375				380							
Lys	Gly	Leu	Ile	Asp	Tyr	Asn	Phe	His	Cys	Phe	Arg	Lys	Ala	Ile	His
385				390				395				400			
Glu	Val	Phe	Glu	Val	Arg	Met	Lys	Val	Val	Lys	Ser	Arg	Lys	Val	Gln
				405				410				415			
Asn	Arg	Leu	Gln	Lys	Lys	Lys	Arg	Ala	Thr	Pro	Asn	Gly	Thr	Pro	Arg
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Val	Leu	Leu													
435															

<210> 3945

<211> 696

<212> DNA

<213> Homo sapiens

<400> 3945

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120

cgggcgcgcc cagcagtagc accgcccgcg cccgcccctg gacacttgta agtttcgatt

180

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240

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300

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360

gcaggtggcc gggcccgaacc gctttgtggt gttggagacc ggccggcagg ccgggatcac

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480

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 540
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 600
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<210> 3946

<211> 165

<212> PRT

<213> Homo sapiens

<400> 3946

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Gly	Ser	Ser	Gly	Gly	His	His	Arg	Ser	Gly	Asp	Pro	Gly	Leu	Ala	Ala
			20					25					30		
Gly	Leu	Gln	His	His	Lys	Ala	Val	Gly	Pro	Gly	His	Leu	Gln	His	Leu
		35					40					45			
Thr	Glu	Leu	Arg	Leu	Arg	Gln	Arg	Asp	Leu	Leu	Glu	Gln	Arg	Val	Gln
		50				55					60				
Gly	His	Ala	Ala	Pro	Val	Gly	Ala	Gln	Asp	Phe	Gly	Asp	Glu	Ala	Ala
65					70					75				80	
His	Leu	Arg	Val	Arg	His	Gly	Ala	Leu	Ala	Val	Leu	Ala	Leu	Pro	Arg
				85					90					95	
Arg	Gly	Thr	Arg	Phe	Arg	Gly	Asn	Arg	Lys	Ser	Lys	Leu	Thr	Ser	Val
			100					105					110		
Gln	Gly	Arg	Ala	Arg	Ala	Val	Leu	Leu	Leu	Gly	Ala	Pro	Gly	Val	Ser
		115				120						125			
Glu	Gly	Ala	Leu	Ser	Val	Ala	Val	Ser	Pro	Ala	Gln	Arg	Ser	Thr	Leu
		130				135					140				
Gly	Ser	Gln	Val	Lys	Arg	Leu	Asp	Leu	Thr	Asp	Arg	Val	Leu	Val	Ala
145				150						155				160	
Gly	Leu	Gln	Pro	Ala											
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<210> 3947

<211> 400

<212> DNA

<213> Homo sapiens

<400> 3947

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 120
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 180
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 240
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 300

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 400

<210> 3948

<211> 133

<212> PRT

<213> Homo sapiens

<400> 3948

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Phe	Cys	Thr	Phe	Ile	Thr	Phe	Leu	Gln	Pro	Val	Val	Asn	Gly	Glu	Leu
			20					25					30		
Thr	Met	Leu	Gly	Glu	Ile	Thr	His	Leu	Gln	Gly	Ile	Ile	Asp	Asp	Leu
		35				40					45				
Val	Val	Leu	Thr	Ala	Glu	Pro	His	Lys	Leu	Pro	Pro	Ala	Ser	Glu	Gln
	50				55					60					
Val	Ile	Lys	Asp	Leu	Lys	Gly	Ser	Asp	Tyr	Ser	Trp	Ser	Tyr	Gln	Thr
65				70					75					80	
Pro	Pro	Ser	Ser	Pro	Ser	Ser	Ser	Ser	Ser	Arg	Lys	Ser	Ser	Met	Cys
			85					90						95	
Ser	Ala	Pro	Ser	Ser	Ser	Ser	Ser	Ala	Lys	Gly	Gly	Gly	Ser	Pro	Met
		100						105					110		
Ala	Trp	Gly	Cys	Pro	Asn	Ile	Leu	Thr	Gln	Phe	His	Leu	Ser	Leu	Pro
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Gln	Pro	Gly	Ala	Ala											
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<210> 3949

<211> 1462

<212> DNA

<213> Homo sapiens

<400> 3949

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 120
 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca ccactgctga
 180
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt
 240
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 360
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 420
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 540

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 660
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 780
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 840
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 960
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<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

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			20					25					30		
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
		35					40					45			
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
	50					55					60				
Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65					70					75				80	
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
			85					90					95		
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
			100					105				110			
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

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  130      135      140
Glu Lys Asp Cys Pro Gly Val Leu Trp Ile Phe Leu Asp Tyr Phe Gln
 145      150      155      160
Thr Ser His Leu Gly His Ser Gly Leu Pro Pro Leu Ser Asp Gln Tyr
      165      170      175
Pro Arg Glu Glu Leu Thr Arg Ile Val Arg Asn Ala Asp Glu Ile Ala
      180      185      190
Glu Tyr Leu Gln Lys Glu Met Gln Leu Ile Ile Glu Asn Pro Pro Ile
      195      200      205
Asn Ile Pro Thr Gly Cys Leu Glu Val Phe Pro Glu Ala Glu Trp Ser
      210      215      220
Gln Gly Val Gln Gly Thr Leu Arg Ile Lys Lys Tyr Leu Thr Val Glu
 225      230      235      240
Gln Ile Met Thr Cys Val Ala Asp Thr Cys Arg Arg Phe Phe Asp Arg
      245      250      255
Gly Tyr Ser Pro Lys Asp Val Ala Val Leu Val Ser Thr Ala Lys Glu
      260      265      270
Val Glu His Tyr Lys Tyr Glu Leu Leu Lys Ala Met Arg Lys Lys Arg
      275      280      285
Val Val Gln Leu Ser Asp Ala Cys Asp Met Leu Gly Asp His Ile Val
      290      295      300
Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe
 305      310      315      320
Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu
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Ile Cys Leu Ala Ser Arg Ala Lys Gln His Leu Tyr Ile Phe Leu
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<210> 3951

<211> 1012

<212> DNA

<213> Homo sapiens

<400> 3951

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420
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540

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<210> 3952

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3952

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			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35				40					45				
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
	50					55					60				
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65				70					75					80	
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
			85					90						95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
		100						105					110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
		130				135					140				
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155				160	
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
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<210> 3953

<211> 2900

<212> DNA

<213> Homo sapiens

<400> 3953

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240
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300
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420
caccctttcc cagttccttt ttgctggtca caaacgatg ctcatcaatc ccacctaaag
480
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 2760
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<210> 3954

<211> 627

<212> PRT

<213> Homo sapiens

<400> 3954

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 Ser Glu Ala Ser Cys Ala Tyr Val Leu Ile Val Thr Ala Val Tyr Trp
 35 40 45
 Val Ser Glu Ala Val Pro Leu Gly Ala Ala Ala Leu Val Pro Ala Phe
 50 55 60
 Leu Tyr Pro Phe Phe Gly Val Leu Arg Ser Asn Glu Val Ala Ala Glu
 65 70 75 80
 Tyr Phe Lys Asn Thr Thr Leu Leu Leu Val Gly Val Ile Cys Val Ala
 85 90 95
 Ala Ala Val Glu Lys Trp Asn Leu His Lys Arg Ile Ala Leu Arg Met
 100 105 110
 Val Leu Met Ala Gly Ala Lys Pro Gly Met Leu Leu Leu Cys Phe Met
 115 120 125
 Cys Cys Thr Thr Leu Leu Ser Met Trp Leu Ser Asn Thr Ser Thr Thr
 130 135 140
 Ala Met Val Met Pro Ile Val Glu Ala Val Leu Gln Glu Leu Val Ser
 145 150 155 160
 Ala Glu Asp Glu Gln Leu Val Ala Gly Asn Ser Asn Thr Glu Glu Ala
 165 170 175
 Glu Pro Ile Ser Leu Asp Val Lys Asn Ser Gln Pro Ser Leu Glu Leu
 180 185 190
 Ile Phe Val Asn Glu Asp Arg Ser Asn Ala Asp Leu Thr Thr Leu Met
 195 200 205
 His Asn Glu Asn Leu Asn Gly Val Pro Ser Ile Thr Asn Pro Ile Lys
 210 215 220
 Thr Ala Asn Gln His Gln Gly Lys Lys Gln His Pro Ser Gln Glu Lys
 225 230 235 240
 Pro Gln Val Leu Thr Pro Ser Pro Arg Lys Gln Lys Leu Asn Arg Lys
 245 250 255
 Tyr Arg Ser His His Asp Gln Met Ile Cys Lys Cys Leu Ser Leu Ser
 260 265 270
 Ile Ser Tyr Ser Ala Thr Ile Gly Gly Leu Thr Thr Ile Ile Gly Thr
 275 280 285
 Ser Thr Ser Leu Ile Phe Leu Glu His Phe Asn Asn Gln Tyr Pro Ala
 290 295 300
 Ala Glu Val Val Asn Phe Gly Thr Trp Phe Leu Phe Ser Phe Pro Ile
 305 310 315 320
 Ser Leu Ile Met Leu Val Val Ser Trp Phe Trp Met His Trp Leu Phe
 325 330 335
 Leu Gly Cys Asn Phe Lys Glu Thr Cys Ser Leu Ser Lys Lys Lys Lys
 340 345 350
 Thr Lys Arg Glu Gln Leu Ser Glu Lys Arg Ile Gln Glu Glu Tyr Glu
 355 360 365
 Lys Leu Gly Asp Ile Ser Tyr Pro Glu Met Val Thr Gly Phe Phe Phe
 370 375 380
 Ile Leu Met Thr Val Leu Trp Phe Thr Arg Glu Pro Gly Phe Val Pro
 385 390 395 400
 Gly Trp Asp Ser Phe Phe Glu Lys Lys Gly Tyr Arg Thr Asp Ala Thr
 405 410 415
 Val Ser Val Phe Leu Gly Phe Leu Leu Phe Leu Ile Pro Ala Lys Lys
 420 425 430
 Pro Cys Phe Gly Lys Lys Asn Asp Gly Glu Asn Gln Glu His Ser Leu
 435 440 445
 Gly Thr Glu Pro Ile Ile Thr Trp Lys Asp Phe Gln Lys Thr Met Pro

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465              470              475              480
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      485              490              495
Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala Cys Ile Leu
      500              505              510
Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr Ile Thr Ile
      515              520              525
Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro
      530              535              540
Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met
545              550              555              560
Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His
      565              570              575
Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile
      580              585              590
Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu
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Phe His Leu Asp Thr Tyr Pro Ala Trp Ala Arg Val Ser Asn Ile Thr
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Asp Gln Ala
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<210> 3955

<211> 522

<212> DNA

<213> Homo sapiens

<400> 3955

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420
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<210> 3956

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3956

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      20           25           30
Ser Thr Met Thr Tyr Leu Asn Lys Gly Gln Phe Tyr Pro Ile Thr Leu
      35           40           45
Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
      50           55           60
Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
65           70           75           80
Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
      85           90           95
Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
      100          105          110
Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
      115          120          125
Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
      130          135          140
Phe Ser Ser Gln Lys Gly Val Lys Gly Leu Pro Leu Asn Ile Gln Val
145          150          155          160
Asp Thr Tyr Ser Tyr Asn Asn Arg Ser Asn Lys Pro Val His
      165          170

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<210> 3957

<211> 3891

<212> DNA

<213> Homo sapiens

<400> 3957

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720

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<210> 3958

<211> 440

<212> PRT

<213> Homo sapiens

<400> 3958

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Thr Glu Pro Ala Gln Ala Gln Lys Cys Tyr Arg Asp Leu Ala Leu Val
          35           40           45
Ser Arg Asp Gly Met Asn Ile Val Leu Asn Lys Ile Asn Gln Ile Leu
          50           55           60
Met Glu Lys Tyr Leu Lys Leu Gln Asp Thr Cys Arg Thr Gln Leu Val
          65           70           75           80
Trp Leu Val Arg Glu Leu Val Lys Ser Gly Val Leu Gly Ala Asp Gly
          85           90           95
Val Cys Met Thr Phe Met Lys Gln Ile Ala Gly Gly Asp Val Thr Ala
          100          105          110
Lys Asn Ile Trp Leu Ala Glu Ser Val Leu Asp Ile Leu Thr Glu Gln
          115          120          125
Arg Glu Trp Val Leu Lys Ser Ser Ile Leu Ile Ala Met Ala Val Tyr
          130          135          140
Thr Tyr Leu Arg Leu Ile Val Asp His His Gly Thr Ala Gln Leu Gln
          145          150          155          160
Ala Leu Arg Gln Lys Glu Val Asp Phe Cys Ile Ser Leu Leu Arg Glu
          165          170          175
Arg Phe Met Glu Cys Leu Met Ile Gly Arg Asp Leu Val Arg Leu Leu
          180          185          190
Gln Asn Val Ala Arg Ile Pro Glu Phe Glu Leu Leu Trp Lys Asp Ile
          195          200          205
Ile His Asn Pro Gln Ala Leu Ser Pro Gln Phe Thr Gly Ile Leu Gln
          210          215          220
Leu Leu Gln Ser Arg Thr Ser Arg Lys Phe Leu Ala Cys Arg Leu Thr
          225          230          235          240
Pro Asp Met Glu Thr Lys Leu Leu Phe Met Thr Ser Arg Val Arg Phe
          245          250          255
Gly Gln Gln Lys Arg Tyr Gln Asp Trp Phe Gln Arg Gln Tyr Leu Ser
          260          265          270
Thr Pro Asp Ser Gln Ser Leu Arg Cys Asp Leu Ile Arg Tyr Ile Cys
          275          280          285
Gly Val Val His Pro Ser Asn Glu Val Leu Ser Ser Asp Ile Leu Pro
          290          295          300
Arg Trp Ala Ile Ile Gly Trp Leu Leu Thr Thr Cys Thr Ser Asn Val
          305          310          315          320
Ala Ala Ser Asn Ala Lys Leu Ala Leu Phe Tyr Asp Trp Leu Phe Phe
          325          330          335
Ser Pro Asp Lys Asp Ser Ile Met Asn Ile Glu Pro Ala Ile Leu Val
          340          345          350
Met His His Ser Met Lys Pro His Pro Ala Ile Thr Ala Thr Leu Leu
          355          360          365
Asp Phe Met Cys Arg Ile Ile Pro Asn Phe Tyr Pro Pro Leu Glu Gly
          370          375          380
His Val Arg Gln Gly Val Phe Ser Ser Leu Asn His Ile Val Glu Lys

```

```

385          390          395          400
Arg Val Leu Ala Cys Lys Lys Tyr Trp Leu Tyr Leu Arg Leu Leu Gly
          405          410          415
Ile Cys Leu Leu Xaa Leu Leu Glu Glu Phe Leu Ser Cys His Arg Ile
          420          425          430
Thr Lys Thr Pro Ser Ser Pro Val
          435          440

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<210> 3959
 <211> 752
 <212> DNA
 <213> Homo sapiens

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<400> 3959
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120
agaaaatgtc ttctcccata tacagagacc ctcataccat ttggggacat tgccccaaaa
180
ggacgggctt tggcgtgaaa gaacatttct accccggctg tttgtgtgct gtcatcccag
240
gtcagggctg aataatgacc acttggtaga cctggtgctc acagagcctt catttggttg
300
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360
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420
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480
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540
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600
actgcttgaa cagagcacac tttgtccttc ctgggtgtgt cctactatcg cttgcgcgac
660
ggggtctgag tgtacttggg ttcctctaaa gcaacgttct gcggttggt gcgtgcgac
720
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752

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<210> 3960
 <211> 94
 <212> PRT
 <213> Homo sapiens

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<400> 3960
Pro Leu Gly Arg Pro Gly Ala His Arg Ala Phe Ile Trp Leu Tyr Lys
1          5          10          15
Gly Pro Asn Ser Pro Leu Asp Phe Leu Phe Ser Phe Gln Asn Ala Val
          20          25          30
Ser Lys Tyr Gly Ser Gln Phe Gln Gly Asn Ser Gln His Asp Ala Leu
          35          40          45
Glu Phe Leu Leu Trp Leu Leu Asp Arg Val His Glu Asp Leu Glu Gly

```

50		55		60
Ser Ser Arg Trp Ala Arg Cys Arg Arg Ser Phe Arg Leu Lys Pro Leu				
65		70		75
Lys Pro Leu Arg Thr Ala Cys His His Gln Leu Ser Phe Leu				80
	85		90	

<210> 3961

<211> 2505

<212> DNA

<213> Homo sapiens

<400> 3961

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120
tcctggggca gaggagggtg tggcggtggc tggagaaagc ggcggcgag gatggaggaa
180
ggaggcgccg gcgtacggag tctggtcccg ggcgggcccg tggtactggt cctctgcggc
240
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300
cgagtcaact ggcccggcac cgagttctct ctgccacaaa ctggagtttt atataaagaa
360
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420
gtgacaagtg gggatgagga agaagaaaag gattataaag gccctaattc aagagagctt
480
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600
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720
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780
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1080
tttccagcga tccacaagtc gattgctatt ggctctcagc cagtgtcac tgttgggaca
1140
accacatat ccaattgac agatgaccaa ctcataaaag agtttcttag tggttcttac
1200
tgctttcgtg ggggtgtcgg ttggtggaaa tatgaattct gctatggcaa acatgtacat
1260

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caataccatg aggacaagga tagtgggaaa acctctgtgg ttgtcgggac atggaaccaa
 1320
 gaagagcata ttgaatgggc taagaagaat actgctagag cttatcatct tcaagacgat
 1380
 ggtaccacaga cagtcaggat ggtgtcacat ttttatggaa atggagatat ttgtgatata
 1440
 actgacaaac caagacaggt gactgtaaaa ctaaagtga aagaatcaga ttcacctcat
 1500
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 1920
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 1980
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 2100
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 2160
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 2340
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 2400
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<210> 3962

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3962

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Gly	Asn	Gly	Thr	Pro	Cys	Ser	Leu	Lys	Gln	Asn	Arg	Pro	Arg	Ser	Ser
			20					25				30			
Thr	Val	Met	Tyr	Ile	Cys	His	Pro	Glu	Ser	Lys	His	Glu	Ile	Leu	Ser

```

      35      40      45
Val Ala Glu Val Thr Thr Cys Glu Tyr Glu Val Val Ile Leu Thr Pro
  50      55      60
Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn
  65      70      75      80
Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr
      85      90      95
Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg
  100      105      110
Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro
  115      120      125
Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val
  130      135      140
Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu
  145      150      155      160
Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys
      165      170      175
Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys
      180      185      190
Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu
  195      200      205
His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln
  210      215      220
Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn
  225      230      235      240
Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys
      245      250      255
Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met
      260      265      270
Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val
      275      280      285
Ile Cys Lys Ile Leu Asp Thr Ala Asp Glu Asn Gly Leu Leu Ser Leu
  290      295      300
Pro Asn
305

```

<210> 3963

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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120
ataaatccat ttgttaaaca gttttcaaac atcagttttt cgagagactc accagaggaa
180
aatgtacaaa gcaataagat ggacctttct ggaggaatgt tacaagacaa acgaatggag
240
atagataaac atagcctaaa tattggtgat tacaatcgaa cggtcgggaa aggccttggt
300
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360

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ggcaatccca gtatgtttgg tggtggaaac acagcagcac aaccccgagg catgcagcag
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 480
 ttactctccc ctccaggttcc agtttcattg ctgaagtatg caccaaaca cgggtggcctg
 540
 aatccactct ttggccctca acaggtagcc atgctgaacc agctatccca gctaaaccag
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 780
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 960
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 1380
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<210> 3964

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

Met	Ala	Met	Ala	Ser	Phe	Leu	Leu	Phe	Tyr	Phe	Thr	Lys	Gly	Met	Met
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Lys	Gly	Gly	Asn	Lys	Gln	Glu	Glu	Ala	Trp	Ile	Asn	Pro	Phe	Val	Lys
			20					25					30		
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
		35					40					45			
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg


```

      50              55              60
Met Glu Ile Asp Lys His Ser Leu Asn Ile Gly Asp Tyr Asn Arg Thr
65              70              75              80
Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser
      85              90              95
Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe
      100              105              110
Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro
      115              120              125
Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro
      130              135              140
Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala
145              150              155              160
Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala
      165              170              175
Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln
      180              185              190
Leu Gln Arg Leu Leu Ala Gln Gln Gln Arg Ala Gln Ser Gln Arg Ser
      195              200              205
Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu
      210              215              220
Ser Val Gln Gln Gln Met Met Gln Gln Ser Arg Gln Leu Asp Pro Asn
225              230              235              240
Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Gln Pro Leu His
      245              250              255
Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr
      260              265              270
Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe
      275              280              285
Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser
      290              295              300
Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser
305              310              315              320
Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala
      325              330              335
Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp
      340              345              350
Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly
      355              360              365
Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn
      370              375              380
Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn
385              390              395              400
Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn
      405              410              415
Asn Leu Pro Ile Asn Thr Val Arg Glu Val Asp His Leu Arg Asp Arg
      420              425              430
Asn Ser Gly Thr
      435

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<210> 3965

<211> 2850

<212> DNA

<213> Homo sapiens

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120
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240
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600
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720
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1560

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<210> 3966

<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

Met	Gly	Pro	Pro	Leu	Ala	Pro	Arg	Pro	Ala	His	Val	Pro	Gly	Glu	Ala
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Gly	Pro	Arg	Arg	Thr	Arg	Glu	Ser	Arg	Pro	Gly	Ala	Val	Ser	Phe	Ala

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                20                25                30
Asp Val Ala Val Tyr Phe Ser Pro Glu Glu Trp Glu Cys Leu Arg Pro
    35                40                45
Ala Gln Arg Ala Leu Tyr Arg Asp Val Met Arg Glu Thr Phe Gly His
    50                55                60
Leu Gly Ala Leu Gly Glu Ala Gly Pro Ser Gly Arg Asp Pro Gln Ser
    65                70                75                80
Val Gly Phe Ser Val Pro Lys Pro Ala Phe Ile Ser Trp Val Glu Gly
    85                90                95
Glu Val Glu Ala Trp Ser Pro Glu Ala Gln Asp Pro Asp Gly Glu Ser
    100                105                110
Ser Ala Ala Phe Ser Arg Gly Gln Gly Gln Glu Ala Gly Ser Arg Asp
    115                120                125
Gly Asn Glu Glu Lys Glu Arg Leu Lys Lys Cys Pro Lys Gln Lys Glu
    130                135                140
Val Ala His Glu Val Ala Val Lys Glu Trp Trp Pro Ser Val Ala Cys
    145                150                155                160
Pro Glu Phe Cys Asn Pro Arg Gln Ser Pro Met Asn Pro Trp Leu Lys
    165                170                175
Asp Thr Leu Thr Arg Arg Leu Pro His Ser Cys Pro Asp Cys Gly Arg
    180                185                190
Asn Phe Ser Tyr Pro Ser Leu Leu Ala Ser His Gln Arg Val His Ser
    195                200                205
Gly Glu Arg Pro Phe Ser Cys Gly Gln Cys Gln Ala Arg Phe Ser Gln
    210                215                220
Arg Arg Tyr Leu Leu Gln His Gln Phe Ile His Thr Gly Glu Lys Pro
    225                230                235                240
Tyr Pro Cys Pro Asp Cys Gly Arg Arg Phe Arg Gln Arg Gly Ser Leu
    245                250                255
Ala Ile His Arg Arg Ala His Thr Gly Glu Lys Pro Tyr Ala Cys Ser
    260                265                270
Asp Cys Lys Ser Arg Phe Thr Tyr Pro Tyr Leu Leu Ala Ile His Gln
    275                280                285
Arg Lys His Thr Gly Glu Lys Pro Tyr Ser Cys Pro Asp Cys Ser Leu
    290                295                300
Arg Phe Ala Tyr Thr Ser Leu Leu Ala Ile His Arg Arg Ile His Thr
    305                310                315                320
Gly Glu Lys Pro Tyr Pro Cys Pro Asp Cys Gly Arg Arg Phe Thr Tyr
    325                330                335
Ser Ser Leu Leu Leu Ser His Arg Arg Ile His Ser Asp Ser Arg Pro
    340                345                350
Phe Pro Cys Val Glu Cys Gly Lys Gly Phe Lys Arg Lys Thr Ala Leu
    355                360                365
Glu Ala His Arg Trp Ile His Arg Ser Cys Ser Glu Arg Arg Ala Trp
    370                375                380
Gln Gln Ala Val Val Gly Arg Ser Glu Pro Ile Pro Val Leu Gly Gly
    385                390                395                400
Lys Asp Pro Pro Val His Phe Arg His Phe Pro Asp Ile Phe Gln Glu
    405                410                415
Phe Cys Gln Gln Arg Leu Gln Asp Arg Gly Val Pro Ser Asn Ala Pro
    420                425                430
Pro Val Pro Gly Gln Ser Pro Arg Ser Phe Phe Arg Asp Arg Arg Gln
    435                440                445
Ser Ser Ala Val Ala Tyr Cys Gly His Arg Gly Val Ser Glu Ala Ser

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450 455 460
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 465 470 475 480
 Asp Thr Pro Pro Pro Pro Leu Glu Lys Ala Ala Glu Ala Ala Leu Phe
 485 490 495
 Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Pro Ala
 500 505 510
 Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys
 515 520 525
 Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu
 530 535 540
 Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val
 545 550 555 560
 Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro
 565 570 575
 Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser
 580 585 590
 Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg
 595 600 605
 Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro
 610 615 620
 Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val
 625 630 635 640
 Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg
 645 650 655
 Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln
 660 665 670
 Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg
 675 680 685
 His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu
 690 695 700
 Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro
 705 710 715 720
 Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln
 725 730 735
 Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly
 740 745 750
 Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro
 755 760 765
 Val Leu Phe Arg His Tyr Pro Asp Ile Phe Glu Glu Cys Gly
 770 775 780

<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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60

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120

tactggatcc gaggccggac ctcagtggac atcatcaaga ctggaggcta caaggtcagc

180

gccctggagg tggagtggca cctgctggcc caccacagca tcacagatgt ggctgtgatt
 240
 ggagttccgg atatgacatg gggccagcgg gtcactgctg tggtgaccct ccgagaagga
 300
 cactcactgt cccacagggg gctcaaagag tggggccagaa atgtcctggc cccgtacgcg
 360
 gtgccctcgg agctgggtgt ggtggaggag atcccgcgga accagatggg caagattgac
 420
 aagaaggcgc tcatacaggca cttccacccc tcatgaccgg gcagactggg actgcggggtc
 480
 tgggtggggag cagcagacgt ccccttcaca ccgagaacca cgggggcccg tccaagacct
 540
 ggctctccctt aaacctgaac cccccaaatc aggtcacgta gaatcaagaa ctgtttggga
 600
 tgaaatcacc atgtgggggtc cccagcctcg ggccagttgt tgcagctcaa ggagaccgtc
 660
 cctggtgtca cctctgctg gtcaccgccc acctcatctg tgcagcgcgg tgcagccagc
 720
 ccctggcccc acgtgctgag gcacctcccc cccacagtg ccctgcagtt gccaggctct
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 840
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 892

<210> 3968

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3968

Xaa	Pro	Ala	Arg	Pro	Arg	Arg	Ala	Arg	Gly	Gly	Gly	Arg	Gly	Arg	Val
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Val	Ala	Arg	Gln	Ile	Leu	Pro	Arg	Gly	Arg	Gly	Arg	Leu	Val	Gly	Asp
			20					25					30		
Thr	Val	Val	Phe	Lys	Asp	Gly	Gln	Tyr	Trp	Ile	Arg	Gly	Arg	Thr	Ser
		35					40					45			
Val	Asp	Ile	Ile	Lys	Thr	Gly	Gly	Tyr	Lys	Val	Ser	Ala	Leu	Glu	Val
	50					55					60				
Glu	Trp	His	Leu	Leu	Ala	His	Pro	Ser	Ile	Thr	Asp	Val	Ala	Val	Ile
	65				70					75				80	
Gly	Val	Pro	Asp	Met	Thr	Trp	Gly	Gln	Arg	Val	Thr	Ala	Val	Val	Thr
			85					90					95		
Leu	Arg	Glu	Gly	His	Ser	Leu	Ser	His	Arg	Glu	Leu	Lys	Glu	Trp	Ala
			100					105					110		
Arg	Asn	Val	Leu	Ala	Pro	Tyr	Ala	Val	Pro	Ser	Glu	Leu	Val	Leu	Val
	115					120					125				
Glu	Glu	Ile	Pro	Arg	Asn	Gln	Met	Gly	Lys	Ile	Asp	Lys	Lys	Ala	Leu
	130					135					140				
Ile	Arg	His	Phe	His	Pro	Ser									
	145				150										

<210> 3969

<211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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120
ggattgcaac tcggggaggg atggagcacg cgtcgtcgcc tgggaaacgg gtcgaccgcg
180
ggaaggcgag cgggtgggac ttccggagca gttaattggt gggaaacttt ctagtggatg
240
tgaggaggag cgggacttcc tgcagcaaat tggggctgtg cgccgctcaa gcccgtttac
300
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360
gagagccccc ctgggggagc gccccccatc ttctgccc ctgacgggca agccctggtc
420
ctgggcaggg gaccctgac ccaggttacg gaccggaagt gctccagaac tcaagtggag
480
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540
gggccagcaa ggcctgggga tgggatttgg ggaggaattg caagccgtca gtgaaggggt
600
acattaggaa aatctgattg gggccgggcg tggtggctca agcctgtaat ccagcactt
660
tgaggaggcc aggcgggagg atcgcttgaa cccaggagtt cgagaccagc ctgagcgaca
720
tggtgaaacc tgtctctcta aaaaattagc gggaatggtg gcgcgtcctt gtagttccta
780
atcgggaggg tgaagcggga ggatcccttg agcccagtag gtcaagggtg tagtgagcag
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900
aagaaaaaat atggc
915

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<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

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Met Gly Glu Val Glu Ala Pro Gly Arg Leu Trp Leu Glu Ser Pro Pro
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Gly Gly Ala Pro Pro Ile Phe Leu Pro Ser Asp Gly Gln Ala Leu Val
20           25           30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35           40           45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50           55           60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65           70           75           80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

<400> 3971
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 120
 ctggggaacg ggtaatcaga gaaaccctca ctcatagggt ggtgcccttt atgcagagac
 180
 ttaaaggaag gagggagggtc ccctgacaga gagaatggta agtgcaaagg tcctgggtgg
 240
 gcttggtgtg aggaagagca aggccagtgt ggctggaaca gaggtagtga aggggagaga
 300
 gttgtaagca atgagcttag acaggaaatg gggctctggtt cacatgggaa atggtaggac
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 attgtccgaa cttgggcttt tactccgggt gaaatgggca ctcctataga tgctcccgct
 420
 ctaatcacca gaa
 433

<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
 Met Ser Tyr His Phe Pro Cys Glu Pro Asp Pro Ile Ser Cys Leu Ser
 1 5 10 15
 Ser Leu Leu Thr Thr Leu Ser Pro Ser Leu Thr Leu Phe Gln Pro His
 20 25 30
 Trp Pro Cys Ser Ser Ser Thr Gln Ala His Pro Gly Pro Leu His Leu
 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
 85 90 95
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
 100 105 110
 Pro Leu Glu His His Gln Ser Arg
 115 120

<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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 caaccataca gagtcaaggt catcgacttt ggttcagcca gccacgtgtc caaggctgtg
 120
 tgctccacct acttgcagtc cagatattac agggcccctg agatcatcct tggtttacca
 180
 ttttgtgagg caattgacat gtggtccctg ggctgtgtta ttgcagaatt gttcctgggt
 240
 tggccggttat atccaggagc ttcggagtat gatcagattc ggtatatttc acaaacacag
 300
 ggtttgctg ctgaatatattt attaagcgcc gggacaaaaga caactagggtt tttcaaccgt
 360
 gacacggact caccatatcc tttgtggaga ctgaagacac cagatgacca tgaagcagag
 420
 acagggatta agtcaaaaaga agcaagaaag tacattttca actgttttaga tgatatggcc
 480
 caggtgaaca tgacgacaga tttggaaggg agcgacatgt tggtagaaaa ggctgaccgg
 540
 cgaggagttca ttgacctgtt gaagaagatg ctgaccattg atgctgacaa gagaatcact
 600
 ccaatcgaaa ccctgaacca tccctttgtc accatgacac acttactcga ttttccccac
 660
 agcacacacg tcaaatcatg tttccagaac atggagatct gcaagcgtcg ggtgaatatg
 720
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 780
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 840
 gcatccatgg ctgcagcggc ccagcggagc atgccctgc agacaggaac agcccagatt
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 tgtgcccggc ctgaccggtt ccagcaagct ctcacgtgt gtccccccgg cctgcaagcc
 960
 ttgcaggcct ctcccttcac gcgt
 984

<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

Leu	Gly	Leu	Ile	His	Ala	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Met	Leu	Val
1				5				10						15	
Asp	Pro	Ser	Arg	Gln	Pro	Tyr	Arg	Val	Lys	Val	Ile	Asp	Phe	Gly	Ser
			20					25						30	
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
			35				40					45			
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala
			50				55				60				
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
					70					75				80	
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
				85					90					95	
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

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      100      105      110
Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu
      115      120      125
Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys
      130      135      140
Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala
145      150      155      160
Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu
      165      170      175
Lys Ala Asp Arg Arg Glu Phe Ile Asp Leu Leu Lys Lys Met Leu Thr
      180      185      190
Ile Asp Ala Asp Lys Arg Ile Thr Pro Ile Glu Thr Leu Asn His Pro
      195      200      205
Phe Val Thr Met Thr His Leu Leu Asp Phe Pro His Ser Thr His Val
      210      215      220
Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met
225      230      235      240
Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala
      245      250      255
Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr
      260      265      270
Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Ala Gln
      275      280      285
Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro
      290      295      300
Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Leu Gln Ala
305      310      315      320
Leu Gln Ala Ser Pro Phe Thr Arg
      325

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<210> 3975

<211> 593

<212> DNA

<213> Homo sapiens

<400> 3975

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120

gctcttgagg gctcaaggga gcctgggcct ctgccagcct gcaagctgcc tccaactctc
180

agtcaggatt tggatgcccc cagtgcagtc ctgaggccgc cgccccccat cctactatcc
240

tgcttctgag gcgtctcgga atcataggcc tcccgtagaa ggggagcagc aggcgaggtc
300

tgcgtgagcc ccacagatgc ccgctcgct gccagactta aaagtctgtg cccctccccg
360

accaccaggg taccagatc ccaggcggct cagccaggcc cagagcccca agagctgggc
420

tggtctctcc aactgggatc tggggtaggg gctgctcccc caagtccctg ggggactgtc
480

tgggacatcc aggcctgtc ttcttgtctt aaccactcac aacagagaac acgatgttct
540

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593

<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

Met	Gly	Phe	Ser	Leu	Leu	Glu	Gly	Pro	Ala	Ser	Leu	Gln	Pro	Pro	His
1				5				10					15		
Arg	Glu	Ser	Leu	Pro	Leu	His	Ser	Leu	Pro	Arg	Asp	Gly	Ser	Trp	Gly
			20					25				30			
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40				45				
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
		50				55				60					
His	Pro	Thr	Ile	Leu	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro
65					70				75				80		
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
				85				90					95		
Leu	Ala	Cys	Gln	Thr											
				100											

<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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120
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180
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240
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300
cctgggtcca ttttcacctg gaacaagcgg agtggcctgc aggtatcgca ggacttcctt
360
ttcctccacc ccagtgcgac cagtgtcctg aatcgactct gccggctcgg cacagactat
420
attcgcttca ctgagttcat tgaacagtac acgggccatg tgcaacagca ggatcaccat
480
ccatctcaac agggccaagg tgggttacat ggaatctacc tgcgggcctt ctgcacaggg
540
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600
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660
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720

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1500
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1560
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1620
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1680
gaaaagtaca atgttgtttt taagtactta ctgagtgtgc gccgggtgca agctgagctg
1740
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2340

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 2640
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 2668

<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

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Phe	Thr	Trp	Asn	Lys	Arg	Ser	Gly	Leu	Gln	Val	Ser	Gln	Asp	Phe	Pro
			20					25					30		
Phe	Leu	His	Pro	Ser	Glu	Thr	Ser	Val	Leu	Asn	Arg	Leu	Cys	Arg	Leu
		35					40					45			
Gly	Thr	Asp	Tyr	Ile	Arg	Phe	Thr	Glu	Phe	Ile	Glu	Gln	Tyr	Thr	Gly
	50					55					60				
His	Val	Gln	Gln	Gln	Asp	His	His	Pro	Ser	Gln	Gln	Gly	Gln	Gly	Gly
65					70					75				80	
Leu	His	Gly	Ile	Tyr	Leu	Arg	Ala	Phe	Cys	Thr	Gly	Leu	Asp	Ser	Val
			85					90						95	
Leu	Gln	Pro	Tyr	Arg	Gln	Ala	Leu	Leu	Asp	Leu	Glu	Gln	Glu	Phe	Leu
		100						105					110		
Gly	Asp	Pro	His	Leu	Ser	Ile	Ser	His	Val	Asn	Tyr	Phe	Leu	Asp	Gln
		115					120					125			
Phe	Gln	Leu	Leu	Phe	Pro	Ser	Val	Met	Val	Val	Val	Glu	Gln	Ile	Lys
	130					135					140				
Ser	Gln	Lys	Ile	His	Gly	Cys	Gln	Ile	Leu	Glu	Thr	Val	Tyr	Lys	His
145					150					155				160	
Ser	Cys	Gly	Gly	Leu	Pro	Pro	Val	Arg	Ser	Ala	Leu	Glu	Lys	Ile	Leu
			165					170						175	
Ala	Val	Cys	His	Gly	Val	Met	Tyr	Lys	Gln	Leu	Ser	Ala	Trp	Met	Leu
		180						185					190		
His	Gly	Leu	Leu	Leu	Asp	Gln	His	Glu	Glu	Phe	Phe	Ile	Lys	Gln	Gly
	195					200						205			
Pro	Ser	Ser	Gly	Asn	Val	Ser	Ala	Gln	Pro	Glu	Glu	Asp	Glu	Glu	Asp
	210					215					220				
Leu	Gly	Ile	Gly	Gly	Leu	Thr	Gly	Lys	Gln	Leu	Arg	Glu	Leu	Gln	Asp
225					230					235				240	
Leu	Arg	Leu	Ile	Glu	Glu	Glu	Asn	Met	Leu	Ala	Pro	Ser	Leu	Lys	Gln
			245					250						255	
Phe	Ser	Leu	Arg	Val	Glu	Ile	Leu	Pro	Ser	Tyr	Ile	Pro	Val	Arg	Val
		260					265					270			
Ala	Glu	Lys	Ile	Leu	Phe	Val	Gly	Glu	Ser	Val	Gln	Met	Phe	Glu	Asn

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Gln Asn Val Asn Leu Thr Arg Lys Gly Ser Ile Leu Lys Asn Gln Glu
      290      295      300
Asp Thr Phe Ala Ala Glu Leu His Arg Leu Lys Gln Gln Pro Leu Phe
305      310      315      320
Ser Leu Val Asp Phe Glu Gln Val Val Asp Arg Ile Arg Ser Thr Val
      325      330      335
Ala Glu His Leu Trp Lys Leu Met Val Glu Glu Ser Asp Leu Leu Gly
      340      345      350
Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu
      355      360      365
Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro
      370      375      380
Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala
385      390      395      400
His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu
      405      410      415
Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa
      420      425      430
Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser
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<210> 3979

<211> 2746

<212> DNA

<213> Homo sapiens

<400> 3979

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<211> 478

<212> PRT

<213> Homo sapiens

<400> 3980

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<212> DNA
<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Cys Leu Leu Arg Leu Tyr Arg Thr Ser Pro Asp Leu Val Pro Met Gly
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Leu Leu Leu Ser Thr Tyr Ile Lys Phe Val Asn Leu Phe Pro Glu Val					
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<212> DNA

<213> Homo sapiens

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		Asp	Asp	Gln	His
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				Cys	His
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<210> 3989

<211> 4522

<212> DNA

<213> Homo sapiens

<400> 3989

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<210> 3990

<211> 955

<212> PRT

<213> Homo sapiens

<400> 3990

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      20             25             30
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      35             40             45
Ser Arg Ser Arg Ser Tyr Ser Pro Ala His Asn Arg Glu Arg Asn His
      50             55             60
Pro Arg Val Tyr Gln Asn Arg Asp Phe Arg Gly His Asn Arg Gly Tyr
      65             70             75             80
Arg Arg Pro Tyr Tyr Phe Arg Gly Arg Asn Arg Gly Phe Tyr Pro Trp
      85             90             95
Gly Gln Tyr Asn Arg Gly Gly Tyr Gly Asn Tyr Arg Ser Asn Trp Gln
      100            105            110
Asn Tyr Arg Gln Ala Tyr Ser Pro Arg Arg Gly Arg Ser Arg Ser Arg
      115            120            125
Ser Pro Lys Arg Arg Ser Pro Ser Pro Arg Ser Arg Ser His Ser Arg
      130            135            140
Asn Ser Asp Lys Ser Ser Ser Asp Arg Ser Arg Arg Ser Ser Ser Ser
      145            150            155            160
Arg Ser Ser Ser Asn His Ser Arg Val Glu Ser Ser Lys Arg Lys Ser
      165            170            175
Ala Lys Glu Lys Lys Ser Ser Ser Lys Asp Ser Arg Pro Ser Gln Ala
      180            185            190
Ala Gly Asp Asn Gln Gly Asp Glu Val Lys Glu Gln Thr Phe Ser Gly
      195            200            205
Gly Thr Ser Gln Asp Thr Lys Ala Ser Glu Ser Ser Lys Pro Trp Pro
      210            215            220
Asp Ala Thr Tyr Gly Thr Gly Ser Ala Ser Arg Ala Ser Ala Val Ser
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Glu Leu Ser Pro Arg Glu Arg Ser Pro Ala Leu Lys Ser Pro Leu Gln
      245            250            255
Ser Val Val Val Arg Arg Arg Ser Pro Arg Pro Ser Pro Val Pro Lys
      260            265            270
Pro Ser Pro Pro Leu Ser Ser Thr Ser Gln Met Gly Ser Thr Leu Pro
      275            280            285
Ser Gly Ala Gly Tyr Gln Ser Gly Thr His Gln Gly Gln Phe Asp His
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Gly Ser Gly Ser Leu Ser Pro Ser Lys Lys Ser Pro Val Gly Lys Ser
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Pro Pro Ser Thr Gly Ser Thr Tyr Gly Ser Ser Gln Lys Glu Glu Ser
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Lys Pro Phe Arg Gly Ser Gln Ser Pro Lys Arg Tyr Lys Leu Arg Asp
      405      410      415
Asp Phe Glu Lys Lys Met Ala Asp Phe His Lys Glu Glu Met Asp Asp
      420      425      430
Gln Asp Lys Asp Lys Ala Lys Gly Arg Lys Glu Ser Glu Phe Asp Asp
      435      440      445
Glu Pro Lys Phe Met Ser Lys Val Ile Gly Ala Asn Lys Asn Gln Glu
      450      455      460
Glu Glu Lys Ser Gly Lys Trp Glu Gly Leu Val Tyr Ala Pro Pro Gly
  465      470      475      480
Lys Glu Lys Gln Arg Lys Thr Glu Glu Leu Glu Glu Glu Ser Phe Pro
      485      490      495
Glu Arg Ser Lys Lys Glu Asp Arg Gly Lys Arg Ser Glu Gly Gly His
      500      505      510
Arg Gly Phe Val Pro Glu Lys Asn Phe Arg Val Thr Ala Tyr Lys Ala
      515      520      525
Val Gln Glu Lys Ser Ser Ser Pro Pro Pro Arg Lys Thr Ser Glu Ser
      530      535      540
Arg Asp Lys Leu Gly Ala Lys Gly Asp Phe Pro Thr Gly Lys Ser Ser
  545      550      555      560
Phe Ser Ile Thr Arg Glu Ala Gln Val Asn Val Arg Met Asp Ser Phe
      565      570      575
Asp Glu Asp Leu Ala Arg Pro Ser Gly Leu Leu Ala Gln Glu Arg Lys
      580      585      590
Leu Cys Arg Asp Leu Val His Ser Asn Lys Lys Glu Gln Glu Phe Arg
      595      600      605
Ser Ile Phe Gln His Ile Gln Ser Ala Gln Ser Gln Arg Ser Pro Ser
      610      615      620
Glu Leu Phe Ala Gln His Ile Val Thr Ile Val His His Val Lys Glu
  625      630      635      640
His His Phe Gly Ser Ser Gly Met Thr Leu His Glu Arg Phe Thr Lys
      645      650      655
Tyr Leu Lys Arg Gly Thr Glu Gln Glu Ala Ala Lys Asn Lys Lys Ser
      660      665      670
Pro Glu Ile His Arg Arg Ile Asp Ile Ser Pro Ser Thr Phe Arg Lys
      675      680      685
His Gly Leu Ala His Asp Glu Met Lys Ser Pro Arg Glu Pro Gly Tyr
      690      695      700
Lys Ala Glu Gly Lys Tyr Lys Asp Asp Pro Val Asp Leu Arg Leu Asp
  705      710      715      720
Ile Glu Arg Arg Lys Lys His Lys Glu Arg Asp Leu Lys Arg Gly Lys
      725      730      735
Ser Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg
      740      745      750
Ser Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys
      755      760      765
Lys His Arg Arg Ala Arg Asp Arg Ser Arg Ser Ser Ser Ser Ser
      770      775      780
Gln Ser Ser His Ser Tyr Lys Ala Glu Glu Tyr Thr Glu Glu Thr Glu

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Glu Arg Glu Glu Ser Thr Thr Gly Phe Asp Lys Ser Arg Leu Gly Thr
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Lys Asp Phe Val Gly Pro Ser Glu Arg Gly Gly Arg Ala Arg Gly
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Thr Phe Gln Phe Arg Ala Arg Gly Arg Gly Trp Gly Arg Gly Asn Tyr
                        835              840              845
Ser Gly Asn Asn Asn Asn Ser Asn Asn Asp Phe Gln Lys Arg Asn
                        850              855              860
Arg Glu Glu Glu Trp Asp Pro Glu Tyr Thr Pro Lys Ser Lys Lys Tyr
865              870              875              880
Tyr Leu His Asp Asp Arg Glu Gly Glu Gly Ser Asp Lys Trp Val Ser
                        885              890              895
Arg Gly Arg Gly Arg Gly Ala Phe Pro Arg Gly Arg Gly Arg Phe Met
                        900              905              910
Phe Arg Lys Ser Ser Thr Ser Pro Lys Trp Ala His Asp Lys Phe Ser
                        915              920              925
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<210> 3991

<211> 381

<212> DNA

<213> Homo sapiens

<400> 3991

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<210> 3992

<211> 127

<212> PRT

<213> Homo sapiens

<400> 3992

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                20              25              30
Pro Phe Glu Pro Ala Pro Tyr Gln Gln Gly Met Tyr Tyr Thr Pro Pro

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      35              40              45
Pro Gln Cys Val Ser Arg Phe Val Arg Pro Pro Pro Ser Ala Pro Glu
  50              55              60
Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Pro Tyr Leu Gln Glu Arg
  65              70              75              80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85              90              95
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<210> 3993
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180
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<210> 3994
 <211> 72
 <212> PRT
 <213> Homo sapiens

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<400> 3994
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      20              25              30
Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
      35              40              45
Ile His Lys Ala Ala Arg Ser Gly Ser Leu Glu Cys Ile Ser Ala Leu
      50              55              60
Val Ala Asn Gly Ala His Val Glu
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<210> 3995
 <211> 715
 <212> DNA
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<400> 3995

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<210> 3996

<211> 235

<212> PRT

<213> Homo sapiens

<400> 3996

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Ser	Ser	Ser	Val	Arg	Arg	Thr	Gln	Ala	Ile	Arg	Arg	Arg	His	Asn	Ala
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Ser	Leu	Gln	Glu	Ala	Gln	Arg	Gly	Arg	Ala	Ala	Ser	His	Ser	Arg	Ala
65					70				75						80
Leu	Thr	Leu	Pro	Ser	Ala	Leu	His	Phe	Ala	Ser	Ser	Leu	Leu	Leu	Thr
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Arg	Ala	Gly	Ala	Asn	Val	His	Glu	Ala	Cys	Thr	Phe	Asp	Asp	Thr	Ser
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Glu	Gly	Ala	Val	His	Tyr	Phe	Tyr	Asp	Glu	Ser	Gly	Val	Arg	Arg	Ser
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Tyr	Thr	Phe	Gly	Leu	Ala	Gly	Gly	Gly	Tyr	Glu	Asn	Pro	Val	Gly	Gln
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Gln	Gly	Glu	Gln	Thr	Ala	Asn	Gly	Ala	Trp	Asp	Arg	His	Ser	His	Ser
145					150					155					160
Ser	Ser	Phe	His	Ser	Ala	Asp	Val	Pro	Glu	Ala	Thr	Gly	Gly	Leu	Asn
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Val	Pro	Leu	Glu	Ile	Pro	Glu	Phe	Asp	Leu	Leu	Asp	Gln	Asp	Ser	Leu
	195		200		205										
His	Glu	Ser	Gln	Glu	Gln	Thr	Leu	Met	Glu	Glu	Ala	Pro	Pro	Arg	Ala
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<210> 3997

<211> 7484

<212> DNA

<213> Homo sapiens

<400> 3997

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Glu Ala Glu Ala Phe Ala Leu Tyr His Lys Ala Leu Asp Leu Gln Lys
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His Asp Arg Phe Glu Glu Ser Ala Lys Ala Tyr His Glu Leu Leu Glu
      50           55           60
Ala Ser Leu Leu Arg Glu Ala Val Ser Ser Gly Asp Glu Lys Glu Gly
      65           70           75           80
Leu Lys His Pro Gly Leu Ile Leu Lys Tyr Ser Thr Tyr Lys Asn Leu
      85           90           95
Ala Gln Leu Ala Ala Gln Arg Glu Asp Leu Glu Thr Ala Met Glu Phe
      100           105           110
Tyr Leu Glu Ala Val Met Leu Asp Ser Thr Asp Val Asn Leu Trp Tyr
      115           120           125
Lys Ile Gly His Val Ala Leu Arg Leu Ile Arg Ile Pro Leu Ala Arg
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Cys Leu Tyr Phe Ile Cys Lys Ala Leu Glu Lys Asp Cys Arg Tyr Ser
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Lys Gly Leu Val Leu Lys Glu Lys Ile Phe Glu Glu Gln Pro Cys Leu
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 Ser Arg Leu Ser Arg Lys Arg Lys Leu Leu Glu Asp Thr Glu Ser Gly
 1845 1850 1855
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 Gly Val Ala Tyr Asp Leu Gly Arg Val Glu Arg Ile Met Ser Glu Thr
 1875 1880 1885
 Tyr Met Leu Ile Lys Gln Val Asp Glu Glu Ala Ala Leu Glu Gln Ala
 1890 1895 1900
 Val Lys Phe Cys Gln Val His Leu Gly Ala Ala Ala Gln Arg Gln Ala
 1905 1910 1915 1920
 Ser Gly Asp Thr Pro Thr Thr Pro Lys His Pro Lys Asp Ser Arg Glu
 1925 1930 1935
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 1940 1945 1950
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 1955 1960 1965
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 1970 1975 1980
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 1985 1990 1995 2000
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 2005 2010 2015
 Glu Leu Ala Arg Val Ala Glu Gly Thr Ser Phe Pro Pro Gln Glu Pro
 2020 2025 2030
 Arg His Ser Pro Gln Val Lys Met Ala Pro Thr Ser Ser Pro Ala Glu
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 2065 2070 2075 2080
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 2115 2120 2125
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<210> 3999

<211> 2546

<212> DNA

<213> Homo sapiens

<400> 3999

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<211> 606

<212> PRT

<213> Homo sapiens

<400> 4000

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Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
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Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
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His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
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Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
100          105          110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
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Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
130          135          140
Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
145          150          155          160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
165          170          175
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
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Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
195          200          205
Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
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Asp His His Thr Gly Leu Pro Ser Ile Leu Leu Gln Arg Glu Arg Ala
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305          310          315          320
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325          330          335
Val Leu His His Ile Ser Met Ile Pro Ala Lys Cys Leu Gln Glu Gly
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Ala Glu Ile Ser Ser Pro Ala Val Glu Arg Leu Ile Ser Ser Leu Leu
355          360          365
Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys Leu Val Arg His Cys
370          375          380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
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Val Tyr Ser Gly Asp Thr Met Pro Cys Glu Ala Leu Val Arg Met Gly
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<210> 4001
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<212> DNA
<213> Homo sapiens
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<211> 417

<212> PRT

<213> Homo sapiens

<400> 4002

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Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
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Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro	
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Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
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Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
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Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
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Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
		115					120					125			
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
	130					135						140			
Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
145					150					155					160
Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165						170					175	
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
			180					185						190	
Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
		195					200					205			
Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
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<212> DNA
<213> Homo sapiens
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<210> 4004

<211> 160
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
 50 55 60
 Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
 65 70 75 80
 Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
 85 90 95
 Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
 100 105 110
 Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
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 Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
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<210> 4005
 <211> 666
 <212> DNA
 <213> Homo sapiens

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666

<210> 4006
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<212> PRT
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35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu
100 105 110
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr
130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
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His Ala Val Asp Glu Glu Leu Ala Ser Ser Pro Val Cys Met Asp Ser
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Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg
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<210> 4007
<211> 2313
<212> DNA
<213> Homo sapiens

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<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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			85					90					95		
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Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
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Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
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Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
	210					215						220			
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
225					230					235				240	
Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
			245						250					255	
Glu	Lys	Lys	Arg	Gly	Thr	Glu	Lys	Leu	Ile	Thr	Lys	Ala	Glu	Lys	Ile

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 Arg Leu Ala Lys Thr Gln Gln Ala Ser Lys His Ile Arg Phe Ser Glu
 275 280 285
 Tyr Asp
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<210> 4009

<211> 675

<212> DNA

<213> Homo sapiens

<400> 4009

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 120
 tcagaagaac cagtagttta taatccaaca acagctgcct tcactctgtga ctcacttggtg
 180
 aatgaaaaaa ccataggcag tcttcctaata gagttttact gttctgaaaa cacttctgtc
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<210> 4010

<211> 225

<212> PRT

<213> Homo sapiens

<400> 4010

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 Met Gln Ala Ser Val Pro Gly Pro Ser Glu Glu Pro Val Val Tyr Asn
 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
 50 55 60
 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
 65 70 75 80
 Pro Asn Glu Ser Asn Lys Ile Leu Val Asn Lys Asp Val Pro Gln Lys

85 90 95
 Pro Gly Gly Glu Thr Thr Pro Ser Val Thr Asp Leu Leu Asn Tyr Phe
 100 105 110
 Leu Ala Pro Glu Ile Leu Thr Gly Asp Asn Gln Tyr Tyr Cys Glu Asn
 115 120 125
 Cys Ala Ser Leu Gln Asn Ala Glu Lys Thr Met Gln Ile Thr Glu Glu
 130 135 140
 Pro Glu Tyr Leu Ile Leu Thr Leu Leu Arg Phe Ser Tyr Asp Gln Lys
 145 150 155 160
 Tyr His Val Arg Arg Lys Ile Leu Asp Asn Val Ser Leu Pro Leu Val
 165 170 175
 Leu Glu Leu Pro Val Lys Arg Ile Thr Ser Phe Ser Ser Leu Ser Glu
 180 185 190
 Ser Trp Ser Val Asp Val Asp Phe Thr Asp Leu Ser Glu Asn Leu Ala
 195 200 205
 Lys Lys Leu Lys Pro Ser Gly Thr Asp Glu Ala Ser Cys Thr Lys Leu
 210 215 220
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<210> 4011

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4011

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 300
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 360
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 480
 cagatccaga atgcgctggg ctcgacatc atcatgcagc tggacgacgt ggtagcagt
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 780
 ctgagcacct ctcggtgccc gaaggacaag ccccgatatc tgatgggggt tggctatgcc
 840

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 900
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 960
 gtgtttgaga aggacttcgg ccccatagac ccggagtgc cctgccccac gtgccaaaag
 1020
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 1080
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 1200
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 1371

<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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			20					25					30		
Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
		35					40					45			
Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
	50					55					60				
Gly	Ile	Thr	Thr	Glu	Gln	Leu	Asp	Ala	Leu	Gly	Cys	Arg	Ile	Cys	Leu
65					70					75				80	
Gly	Asn	Thr	Tyr	His	Leu	Gly	Leu	Arg	Pro	Gly	Pro	Glu	Leu	Ile	Gln
				85					90					95	
Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
			100					105					110		
Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
		115					120					125			
Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
	130						135				140				
Ser	Pro	Tyr	Asp	Gly	Asn	Glu	Thr	Leu	Leu	Ser	Pro	Glu	Lys	Ser	Val
145					150					155				160	
Gln	Ile	Gln	Asn	Ala	Leu	Gly	Ser	Asp	Ile	Ile	Met	Gln	Leu	Asp	Asp
				165					170					175	
Val	Val	Ser	Ser	Thr	Val	Thr	Gly	Pro	Arg	Val	Glu	Glu	Ala	Met	Tyr
			180					185					190		
Arg	Ser	Ile	Arg	Trp	Leu	Asp	Arg	Cys	Ile	Ala	Ala	His	Gln	Arg	Pro
	195						200					205			
Asp	Lys	Gln	Asn	Leu	Phe	Ala	Ile	Ile	Gln	Gly	Gly	Leu	Asp	Ala	Asp
	210					215					220				
Leu	Arg	Ala	Thr	Cys	Leu	Glu	Glu	Met	Thr	Lys	Arg	Asp	Val	Pro	Gly

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<210> 4013
<211> 1419
<212> DNA
<213> Homo sapiens
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120
agagcttccc ccatccccgg cacgcccgcac cggtcgccgt gccaacagct gctccagcag
180
gcccaggtg ccattcctcg aagcacctcc ttcgaccgga agctgcccga tggcacgaga
240
agctcaccca gcaaccagtc atcctccagc gacctggac cggcggggag cggaccctgg
300
agaccacaag tgggctacga cgggtgccag tcccctctac tgctcgaaca ccaggggtca
360
ggccctttgg aatgtgacgg agccagggag agggaagaca ccatggaagc aagcaggcac
420
ccggaacca aatggcatgg cccaccttcc aaagtccctgg gttcctataa agaaagagct
480
ctgcagaaaag atggaagttg caaagattcc cccaataagc tttctcacat tggggataaa
540
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600
gacaagcact ttgggtctgg cgacctgatg gaccccgaaat tactgggggct gacctacatc
660
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 780
 gatgctgccg acgtctctgg gcctgacgac gagccagcca agttatattc tgtgcatggc
 840
 tacgcgtcca ccatctccgc cggcagtgtc gcggaaggca gcctgggcca tctcagttag
 900
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 960
 agtagtgggt ctctggattc atccaaagtc tacatcgtgt ctcacagcag cggacaacag
 1020
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 1080
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 1140
 gggatgtata gtgagttgga tgtcatgtcc acagcaactc agcatcagac agtgggtggga
 1200
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 1320
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<210> 4014

<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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Glu	Tyr	Lys	Thr	Pro	Phe	Arg	Arg	Asn	Thr	Thr	Trp	His	Arg	Val	Pro
			20					25					30		
Thr	Pro	Ala	Leu	Gln	Pro	Leu	Ser	Arg	Ala	Ser	Pro	Ile	Pro	Gly	Thr
		35					40					45			
Pro	Asp	Arg	Leu	Pro	Cys	Gln	Leu	Leu	Gln	Gln	Ala	Gln	Ala	Ala	
	50					55				60					
Ile	Pro	Arg	Ser	Thr	Ser	Phe	Asp	Arg	Lys	Leu	Pro	Asp	Gly	Thr	Arg
65				70					75					80	
Ser	Ser	Pro	Ser	Asn	Gln	Ser	Ser	Ser	Ser	Asp	Pro	Gly	Pro	Gly	Gly
			85					90						95	
Ser	Gly	Pro	Trp	Arg	Pro	Gln	Val	Gly	Tyr	Asp	Gly	Cys	Gln	Ser	Pro
			100					105					110		
Leu	Leu	Leu	Glu	His	Gln	Gly	Ser	Gly	Pro	Leu	Glu	Cys	Asp	Gly	Ala
		115				120						125			
Arg	Glu	Arg	Glu	Asp	Thr	Met	Glu	Ala	Ser	Arg	His	Pro	Glu	Thr	Lys
	130				135					140					
Trp	His	Gly	Pro	Pro	Ser	Lys	Val	Leu	Gly	Ser	Tyr	Lys	Glu	Arg	Ala
145				150						155				160	
Leu	Gln	Lys	Asp	Gly	Ser	Cys	Lys	Asp	Ser	Pro	Asn	Lys	Leu	Ser	His

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                165                170                175
Ile Gly Asp Lys Ser Cys Ser Ser His Ser Ser Ser Asn Thr Leu Ser
                180                185                190
Ser Asn Thr Ser Ser Asn Ser Asp Asp Lys His Phe Gly Ser Gly Asp
                195                200                205
Leu Met Asp Pro Glu Leu Leu Gly Leu Thr Tyr Ile Lys Gly Ala Ser
                210                215                220
Thr Asp Ser Gly Ile Asp Thr Ala Pro Cys Met Pro Ala Thr Ile Leu
225                230                235                240
Gly Pro Val His Leu Ala Gly Ser Arg Ser Leu Ile His Ser Arg Ala
                245                250                255
Glu Gln Trp Ala Asp Ala Ala Asp Val Ser Gly Pro Asp Asp Glu Pro
                260                265                270
Ala Lys Leu Tyr Ser Val His Gly Tyr Ala Ser Thr Ile Ser Ala Gly
                275                280                285
Ser Ala Ala Glu Gly Ser Met Gly Asp Leu Ser Glu Ile Ser Ser His
                290                295                300
Ser Ser Gly Ser His His Ser Gly Ser Pro Ser Ala His Cys Ser Lys
305                310                315                320
Ser Ser Gly Ser Leu Asp Ser Ser Lys Val Tyr Ile Val Ser His Ser
                325                330                335
Ser Gly Gln Gln Val Pro Gly Ser Met Ser Lys Pro Tyr His Arg Gln
                340                345                350
Gly Ala Val Asn Lys Tyr Val Ile Gly Trp Lys Lys Ser Glu Gly Ser
                355                360                365
Pro Pro Pro Glu Glu Pro Glu Val Thr Glu Cys Pro Gly Met Tyr Ser
                370                375                380
Glu Leu Asp Val Met Ser Thr Ala Thr Gln His Gln Thr Val Val Gly
385                390                395                400
Asp Ala Val Ala Glu Thr Gln His Val Leu Ser Lys Glu Asp Phe Leu
                405                410                415
Lys Leu Met Leu Pro Asp Ser Pro Leu Val Glu Glu Gly Arg Arg Lys
                420                425                430
Phe Ser Phe Tyr Gly Asn Leu Ser Pro Arg Arg Ser Leu Tyr Arg Thr
                435                440                445
Leu Ser Asp Glu Ser Ile Cys Ser Asn Arg Arg Gly Ser Ser Phe Gly
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Ser Ser Arg Ser Ser Val Leu Asp Gln
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<210> 4015

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4015

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120
atagtgtctgc agggcggcgg cctggagtct cccaccaagc ccaaggggcg gcccaagaag
180
aactcaattc caacgagcga gcagcttact gagcaggagc gcgccaagga tgcagagaaa
240

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cccgcggagg tgccgggcca gcccagcgac aggagccgcg aggactgagg gcggtatacg
 300
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 360
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 480
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 540
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 720
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<210> 4016

<211> 95

<212> PRT

<213> Homo sapiens

<400> 4016

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Ala	Glu	Ser	Leu	Gly	Leu	Ser	Gln	Leu	Gln	Val	Lys	Thr	Trp	Tyr	Gln
			20				25						30		
Asn	Arg	Arg	Met	Lys	Trp	Lys	Lys	Ile	Val	Leu	Gln	Gly	Gly	Gly	Leu
		35				40						45			
Glu	Ser	Pro	Thr	Lys	Pro	Lys	Gly	Arg	Pro	Lys	Lys	Asn	Ser	Ile	Pro
	50					55					60				
Thr	Ser	Glu	Gln	Leu	Thr	Glu	Gln	Glu	Arg	Ala	Lys	Asp	Ala	Glu	Lys
65				70					75					80	
Pro	Ala	Glu	Val	Pro	Gly	Glu	Pro	Ser	Asp	Arg	Ser	Arg	Glu	Asp	
			85					90						95	

<210> 4017

<211> 1521

<212> DNA

<213> Homo sapiens

<400> 4017

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 120
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 180
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<210> 4018

<211> 480

<212> PRT

<213> Homo sapiens

<400> 4018

Gln Gln Pro Glu Asp Tyr Cys Tyr Ser Ala Arg Ile Arg Ser Thr Val

1

5

10

15

Leu Gln Gly Leu Pro Phe Gly Gly Val Pro Thr Val Leu Ala Leu Asp

3195

3196

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 1440
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 2280
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<210> 4020

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4020

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Ser	Tyr	Val	Leu	Pro	Arg	Lys	Val	Ile	Thr	Ala	Ala	Val	Ile	Gly	Ser
			20					25					30		
Leu	Val	Cys	Gly	Leu	Leu	Leu	Val	Ile	Ala	Leu	Gly	Cys	Thr	Cys	Lys
		35					40					45			
Leu	Tyr	Ala	Ile	Arg	Thr	Gln	Glu	Tyr	Ser	Ile	Phe	Ala	Pro	Leu	Ser
	50					55					60				
Arg	Met	Glu	Ala	Glu	Ile	Val	Gln	Gln	Gln	Ala	Pro	Pro	Ser	Tyr	Gly

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          100          105          110
Gln Ile Leu Arg Gln Asp Met Thr Pro Gly Gly Gly Pro Gly Ala Arg
          115          120          125
Arg Arg Gln Arg Gly Arg Leu Met Arg Arg Leu Val Arg Arg Leu Arg
          130          135          140
Arg Trp Gly Leu Leu Pro Arg Thr Asn Thr Pro Ala Arg Ala Ser Glu
145          150          155          160
Ala Arg Ser Gln Val Thr Pro Ser Ala Ala Pro Leu Glu Ala Leu Asp
          165          170          175
Gly Gly Thr Gly Pro Ala Arg Glu Gly Gly Ala Val Gly Gly Gln Asp
          180          185          190
Gly Glu Gln Ala Pro Pro Leu Pro Ile Lys Ala Pro Leu Pro Ser Ala
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3202

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Phe Met Asn Pro His Leu Ile Ser Val Arg Ile Asn Glu Arg Cys Gln			
370	375	380	
Arg Gly Thr Glu Asp Asn Lys Lys Leu Ala Tyr Leu Ile Asp Ile Lys			
385	390	395	400
Thr Ile Ala Ile Val Asp Leu Ile Gly Gly Tyr Asn Ile Gly Thr Val			
405	410	415	
Ser His Glu Ser Arg Val Asp Trp Leu Glu Leu Asn Glu Thr Gly His			
420	425	430	
Lys Leu Leu Phe Arg Asp Arg Lys Leu Arg Leu His Leu Tyr Asp Ile			

3208

865						870										880
Met	Tyr	Thr	Gln	Ala	Gly	Arg	Trp	Glu	Gln	Ala	His	Lys	Leu	Ala	Met	
				885					890					895		
Lys	Cys	Met	Arg	Pro	Glu	Asp	Val	Ser	Val	Leu	Tyr	Ile	Thr	Gln	Ala	
			900					905					910			
Gln	Glu	Met	Glu	Lys	Gln	Gly	Lys	Tyr	Arg	Glu	Ala	Glu	Arg	Leu	Tyr	
		915					920					925				
Val	Thr	Val	Gln	Glu	Pro	Asp	Leu	Ala	Ile	Thr	Met	Tyr	Lys	Lys	His	
	930					935					940					
Lys	Leu	Tyr	Asp	Asp	Met	Ile	Arg	Leu	Val	Gly	Lys	His	His	Pro	Asp	
945				950						955					960	
Leu	Leu	Ser	Asp	Thr	His	Leu	His	Leu	Gly	Lys	Glu	Leu	Glu	Ala	Glu	
			965						970					975		
Gly	Arg	Leu	Gln	Glu	Ala	Glu	Tyr	His	Tyr	Leu	Glu	Ala	Gln	Glu	Trp	
		980						985					990			
Lys	Ala	Thr	Val	Asn	Met	Tyr	Arg	Ala	Ser	Gly	Leu	Trp	Glu	Glu	Ala	
	995						1000					1005				
Tyr	Arg	Val	Ala	Arg	Thr	Gln	Gly	Gly	Ala	Asn	Ala	His	Lys	His	Val	
	1010					1015					1020					
Ala	Tyr	Leu	Trp	Ala	Lys	Ser	Leu	Gly	Gly	Glu	Ala	Ala	Val	Arg	Leu	
1025				1030						1035					1040	
Leu	Asn	Lys	Leu	Gly	Leu	Leu	Glu	Ala	Ala	Val	Asp	His	Ala	Ala	Asp	
			1045					1050						1055		
Asn	Cys	Ser	Phe	Glu	Phe	Ala	Phe	Glu	Leu	Ser	Arg	Leu	Ala	Leu	Lys	
		1060						1065					1070			
His	Lys	Thr	Pro	Glu	Val	His	Leu	Lys	Tyr	Ala	Met	Phe	Leu	Glu	Asp	
	1075						1080					1085				
Glu	Gly	Lys	Phe	Glu	Glu	Ala	Glu	Ala	Glu	Phe	Ile	Arg	Ala	Gly	Lys	
	1090					1095					1100					
Pro	Lys	Glu	Ala	Val	Leu	Met	Phe	Val	His	Asn	Gln	Asp	Trp	Glu	Ala	
1105				1110						1115					1120	
Ala	Gln	Arg	Val	Ala	Glu	Ala	His	Asp	Pro	Asp	Ser	Val	Ala	Glu	Val	
			1125					1130						1135		
Leu	Val	Gly	Gln	Ala	Arg	Gly	Ala	Leu	Glu	Glu	Lys	Asp	Phe	Gln	Lys	
		1140						1145					1150			
Ala	Glu	Gly	Leu	Leu	Leu	Arg	Ala	Gln	Arg	Pro	Gly	Leu	Ala	Leu	Asn	
	1155						1160				1165					
Tyr	Tyr	Lys	Glu	Ala	Gly	Leu	Trp	Ser	Asp	Ala	Leu	Arg	Ile	Cys	Lys	
	1170					1175					1180					
Asp	Tyr	Val	Pro	Ser	Gln	Leu	Glu	Ala	Leu	Gln	Glu	Glu	Tyr	Glu	Arg	
1185				1190						1195					1200	

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1300      1305      1310
Arg Val Ala Lys Glu Leu Asp Pro Arg Tyr Glu Asp Tyr Val Asp Gln
1315      1320      1325
His Tyr Lys Glu Phe Leu Lys Asn Gln Gly Lys Val Asp Ser Leu Val
1330      1335      1340
Gly Val Asp Val Ile Ala Ala Leu Asp Leu Tyr Val Glu Gln Gly Gln
1345      1350      1355      1360
Trp Asp Lys Cys Ile Glu Thr Ala Thr Lys Gln Asn Tyr Lys Ile Leu
1365      1370      1375
His Lys Tyr Val Ala Leu Tyr Ala Thr His Leu Ile Arg Glu Gly Ser
1380      1385      1390
Ser Ala Gln Ala Leu Ala Leu Tyr Val Gln His Gly Ala Pro Ala Asn
1395      1400      1405
Pro Gln Asn Phe Asn Ile Tyr Lys Arg Ile Phe Thr Asp Met Val Ser
1410      1415      1420
Ser Pro Gly Thr Asn Cys Ala Glu Ala Tyr His Ser Trp Ala Asp Leu
1425      1430      1435      1440
Arg Asp Val Leu Phe Asn Leu Ala Val Leu Ser Pro Ser Ser Ser Val
1445      1450      1455
Lys Thr Trp Lys Ser Ser Glu Ala Asn Ser Pro Ala His Glu Glu Phe
1460      1465      1470
Lys Thr Met Leu Leu Ile Ala His Tyr Tyr Ala Thr Arg Ser Ala Ala
1475      1480      1485
Gln Ser Val Lys Gln Leu Glu Thr Val Ala Ala Arg Leu Ser Val Ser
1490      1495      1500
Leu Leu Arg His Thr Gln Leu Leu Pro Val Asp Lys Ala Phe Tyr Glu
1505      1510      1515      1520
Ala Gly Ile Ala Ala Lys Ala Val Gly Trp Asp Asn Met Ala Phe Ile
1525      1530      1535
Phe Leu Asn Arg Phe Leu Asp Leu Thr Asp Ala Ile Glu Glu Gly Thr
1540      1545      1550
Leu Asp Gly Leu Asp His Ser Asp Phe Gln Asp Thr Asp Ile Pro Phe
1555      1560      1565
Glu Val Pro Leu Pro Ala Lys Gln His Val Pro Glu Ala Glu Arg Glu
1570      1575      1580
Glu Val Arg Asp Trp Val Leu Thr Val Ser Met Asp Gln Arg Leu Glu
1585      1590      1595      1600
Gln Val Leu Pro Arg Asp Glu Arg Gly Ala Tyr Glu Ala Ser Leu Val
1605      1610      1615
Ala Ala Ser Thr Gly Val Arg Ala Leu Pro Cys Leu Ile Thr Gly Tyr
1620      1625      1630
Pro Ile Leu Arg Asn Lys Ile Glu Phe Lys Arg Pro Gly Lys Ala Ala
1635      1640      1645
Asn Lys Asp Asn Trp Asn Lys Phe Leu Met Ala Ile Lys Thr Ser His
1650      1655      1660
Ser Pro Val Cys Gln Asp Val Leu Lys Phe Ile Ser Gln Trp Cys Gly
1665      1670      1675      1680
Gly Leu Pro Ser Thr Ser Phe Ser Phe Gln
1685      1690

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<210> 4025

<211> 908

<212> DNA

<213> Homo sapiens

<400> 4025

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 60
 gatccctcat cccttagact gcatttgaga attcacactg gagaaaaacc ctatgaatgt
 120
 aaccagtgtt ttcacgtttt cgcaccagt tgtaacctta aaagccacaa gaggattcac
 180
 acgggggaga atcaccatga atgtaatcag tgtggaaaag ctttcagcac aaggtcctct
 240
 ctactgggc acaattgcat tcatacaggg gagaaacctt atgaatgtaa ggaatgtggg
 300
 aaaaccttta tgtataattc atcccttatt caacatctga gaactcatac tggagagaaa
 360
 ccctatgaat gtaaggagtg tgggaaagcc ttaggcaac attcacacct tgtcacacac
 420
 cagaaaatcc atactggaga gaagccctat cagtgcactg aatgtgggaa agccttcagg
 480
 cggcggtcac tccttattca acatcggaga attcatagtg gtgagaagcc ctatgaatgt
 540
 aaggaatgtg ggaagctctt catttgccgc acagctttcc tcaaacaatca gagcctgcat
 600
 gctggagaga aacttgaaga atgtgagaaa nnaccttcag caaggatgag gagcttaggg
 660
 gagnagcaga aaattcacca agaagagaaa gcttattggg gtaatcagtg tggtagggct
 720
 ttccagggca gctcagacct catcggacat caggtaactc atacaggaga gaaaccatat
 780
 gaatgtaaag aatgtggana aactttcaat cagagctcag accttctgag acatcataga
 840
 attcacagtg gagaaaaacc ttatgtatgc aacaaatgtg ggaaatcttt taggggcagc
 900
 tcagatct
 908

<210> 4026

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4026

Leu	Arg	Thr	His	Thr	Gly	Xaa	Lys	Pro	Tyr	Glu	Cys	Asn	His	Cys	Gly
1				5					10					15	
Lys	Ala	Phe	Ser	Asp	Pro	Ser	Ser	Leu	Arg	Leu	His	Leu	Arg	Ile	His
			20					25					30		
Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Gln	Cys	Phe	His	Val	Phe	Arg
			35				40					45			
Thr	Ser	Cys	Asn	Leu	Lys	Ser	His	Lys	Arg	Ile	His	Thr	Gly	Glu	Asn
			50				55				60				
His	His	Glu	Cys	Asn	Gln	Cys	Gly	Lys	Ala	Phe	Ser	Thr	Arg	Ser	Ser
					70					75					80
Leu	Thr	Gly	His	Asn	Cys	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys
				85					90					95	
Lys	Glu	Cys	Gly	Lys	Thr	Phe	Met	Tyr	Asn	Ser	Ser	Leu	Ile	Gln	His

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<210> 4027
<211> 941
<212> DNA
<213> Homo sapiens
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3212

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 720
 ggctctgggccc gttctcatatc ccccggaac catatcttac ccattgtatg tcgcagcttg
 780
 caggccagtg cttggcacag agcagggact caggaagcct ttgtcactaa agtaagagcc
 840
 tctgcggagt acagtgcattg gggtcggctg ggacaccccc aggcagcaga tcctgggtatt
 900
 gggctgagga aagagcactg cgcttggagt cagtaagatc t
 941

<210> 4028

<211> 236

<212> PRT

<213> Homo sapiens

<400> 4028

Ala	Arg	Gln	Gly	Thr	Tyr	Ile	Cys	Glu	Ile	Arg	Leu	Lys	Gly	Glu	Ser
1				5					10					15	
Gln	Val	Phe	Lys	Lys	Ala	Val	Val	Leu	His	Val	Leu	Pro	Glu	Glu	Pro
			20					25				30			
Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu	Ile	Gln	Met	Gly	Cys	Val
		35					40				45				
Phe	Gln	Ser	Thr	Glu	Val	Lys	His	Val	Thr	Lys	Val	Glu	Trp	Ile	Phe
	50					55				60					
Ser	Gly	Arg	Arg	Ala	Lys	Glu	Glu	Ile	Val	Phe	Arg	Tyr	Tyr	His	Lys
65					70					75				80	
Leu	Arg	Met	Ser	Ala	Glu	Tyr	Ser	Gln	Ser	Trp	Gly	His	Phe	Gln	Asn
			85					90						95	
Arg	Val	Asn	Leu	Val	Gly	Asp	Ile	Phe	Arg	Asn	Asp	Gly	Ser	Ile	Met
			100					105					110		
Leu	Gln	Gly	Val	Arg	Glu	Ser	Asp	Gly	Gly	Asn	Tyr	Thr	Cys	Ser	Ile
		115					120					125			
His	Leu	Gly	Asn	Leu	Val	Phe	Lys	Lys	Thr	Ile	Val	Leu	His	Val	Ser
		130				135					140				
Pro	Glu	Glu	Pro	Arg	Thr	Leu	Val	Thr	Pro	Ala	Ala	Leu	Arg	Pro	Leu
145					150					155				160	
Val	Leu	Gly	Gly	Asn	Gln	Leu	Val	Ile	Ile	Val	Gly	Ile	Val	Cys	Ala
			165					170						175	
Thr	Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys
			180					185					190		
Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr	Lys
		195				200						205			
Lys	Thr	Asn	Pro	Glu	Met	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu	Arg	Cys
	210					215					220				
Glu	Gly	Glu	Val	Asn	Thr	Arg	Phe	Ser	Leu	Lys	His				
225					230					235					

<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

cgcccgccctg ttttggtggtg cgctggacct gctggacctg ctggacatgc aggccagcct
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 gtgggagccg ccgcgctccg ggctgccgct gtggggccgag ggcctcacct tcttctactg
 120
 ctacatgctg ctgctggtgc tgcctgctgc ggcgctcagc gaggtcagca tgcagggcga
 180
 gcacatagcg ccgcagaaga tgatgctgta cccggtgctc agtctcgcca ccgtcaatgt
 240
 ggtggggccgt gctggcgcg cccgccaaca tggcgctggt ccgggacagc cgtgtctcgg
 300
 ccatcttcgt cggcaaaaac gtggtggcgc tcgccaccaa ggccctgcacc tnntcctgga
 360
 gtaccgccgc caggtgcgcg acttcccnng ccgcctgcgc tatcactgga gctgcagccg
 420
 ccacccccgc agcgcaactc ggtgccgccc ccgccgcgc cgctgcacgg cccgcctggg
 480
 ncgccccac atgtcctcgc ccacgcgtga cccctggac acgtgacagg gccgcgcg
 540
 ccccgacac gccctgggg cgagagaca ccgggttggc ttggggcgcg cggtttgc
 600
 gggatggggg gggggcgggc tcccctaggg acaggtgcct cgagtggccg tgctgggg
 660
 cccgcggccg cttcttcac tcaggaatct ctcggaccgc ggatcctcag ccccgctcc
 720
 accagccgc cccagcgcgt ggtctgttt gggaggcctg ggccggagca gagcagagg
 780
 gatccggccc ctgcctgctg ggccgcccgg gttggaagg agggcagtgt gggcgagat
 840
 ctgctccttc ggtgggggccc tctggctcag atttggggcc aaggaggcct ctgtcattt
 900
 aaagactcg
 909

<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

Arg	Pro	Pro	Val	Leu	Gly	Gly	Ala	Gly	Pro	Ala	Gly	His
1				5				10			15	
Ala	Gly	Gln	Pro	Val	Gly	Ala	Ala	Ala	Leu	Arg	Ala	Ala
			20					25			30	
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly
		35					40			45		
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala
		50				55				60		
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His
65				70					75			80
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys
			85					90				95
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp
			100					105				110
Pro	Arg	Pro	Ala	Pro	Xaa	Pro	Gly	Val	Pro	Pro	Gly	Ala
												Arg
												Leu

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<210> 4031
<211> 1406
<212> DNA
<213> Homo sapiens
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3215

ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga
 1260
 tcctcatgtg atcatgaagt aacagtaact gactttttat gttaaaaaat gtacatttac
 1320
 tgtggattct gttaatttta ttgtgtatgt gtggggaaaa gattggattc taaaataaaa
 1380
 gtttaccctg tggcaaaaaa aaaaaa
 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

Xaa	Ala	Glu	Asn	Ala	Ser	Leu	Ala	Lys	Leu	Arg	Ile	Glu	Arg	Glu	Ser
1			5						10					15	
Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys
		20					25					30			
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg	
	35					40					45				
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
	50					55					60				
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65				70					75					80	
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
			85				90						95		
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
		100					105						110		
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
	115						120				125				
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
	130				135					140					
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
145				150					155					160	
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr
			165				170							175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
		180					185						190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
	195						200					205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
	210				215						220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
225			230						235					240	
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
			245				250							255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
		260					265						270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
	275						280					285			
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu
	290				295						300				
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp

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305          310          315          320
Gly Arg Lys Glu Ile Thr Phe Pro Asp Gln Thr Val Lys Asn Leu Phe
          325          330          335
Pro Asp Gly Gln Glu Glu Ser Ile Phe Pro Asp Gly Thr Ile Val Arg
          340          345          350
Val Gln Arg Asp Gly Asn Lys Leu Ile Glu Phe Asn Asn Gly Gln Arg
          355          360          365
Glu Leu His Thr Ala Gln Phe Lys Arg Arg Glu Tyr Pro Asp Gly Thr
          370          375          380
Val Lys Thr Val Tyr Ala Asn Gly His Gln Glu Thr Lys Tyr Arg Ser
385          390          395          400
Gly Arg Ile Arg Val Lys Asp Lys Glu Gly Asn Val Leu Met Asp Thr
          405          410          415
Glu Leu

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<210> 4033

<211> 487

<212> DNA

<213> Homo sapiens

<400> 4033

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acgcgtgaag ggacaacttc gcagagtctg gctactgctg acgcgcaggg agtaagcctc
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gggttttgat gggatagcag acaggtggat tgcagagctc cggaagacc cagccgggtg
120
tcaagaagag cctccttagt ttggcctcta actggctgtg cgacccagc caggtcactt
180
gtcctctctg ggaagcagct gaataatgaa cactgggatt ttcccaggct ggcttctcac
240
tgcagagcag aggaaaagca ttctgggggc ctgctatgga gggtcattta tccagtttac
300
aacttccacg gccggccctc aatggcttcc tttctctccc acaagagcgc tgggccaagc
360
cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgtca
420
ggaccagacg ggaggcctgg cgccccgcc cgccatgtgt ggggagcggg cctctccaag
480
ccagtcc
487

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<210> 4034

<211> 94

<212> PRT

<213> Homo sapiens

<400> 4034

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Met Asn Thr Gly Ile Phe Pro Gly Trp Leu Leu Thr Ala Glu Gln Arg
  1          5          10          15
Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
          20          25          30
Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
          35          40          45
Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

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50		55		60
Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro				
65	70	75	80	
Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser				
	85	90		

<210> 4035
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 4035
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 120
 tcctatggga gggacaaact ctcaaaaaat agcaagagta ttttgaatc ctatctgagg
 180
 tataaacact cagaacctca tagcagtgtt caggaatcct atgtgaggga caaacattca
 240
 gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
 300
 agtgtttctgg aatccttttt ttttttgaag ctttcaatct ctt
 343

<210> 4036
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 4036
 Xaa Leu Asn Ser Ser Val Met Glu Phe His Val Arg His Lys His Ser
 1 5 10 15
 Asp Asn Pro Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser
 20 25 30
 Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser
 35 40 45
 Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
 50 55 60
 Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
 65 70 75 80
 Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
 85 90 95
 Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Phe Leu Lys Leu Ser
 100 105 110
 Ile Ser

<210> 4037
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 4037

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tcatacataaa ggtcttcatt ctcacccctct tcacgttgag taggctgagg aggaggaaga
120
ggaggagaag ggggttggtct tgctgtctca gggcggcaga ggcagaagag aatctgagca
180
tacgtggacc tgtagccagg tgggcataga taaaaggaaa tattgtttgc cagtccctgc
240
tggaatgatg cctttacaca tctgtctgat ctgattgctc cactgttttc tgactttctt
300
tccttttcca gggttctagc ctgttcatct agcccatga tggctgtgga catcgagtac
360
agatacaact gcatggctcc ttccttgccg caagagaggt ttgcctttaa gatctcacca
420
aagcccagca aaccactgag gccttgattt cagctgagca gcaagaatga agccagtggg
480
atgggtggccc cggctgtcca ggagaagaag gtgaaaaagc ggggtgtcctt cgcagacaac
540
caggggctgg ccctgacaat ggtcaaagtg ttctcggaat tcgatgaccc gctagatatg
600
ccattcaaca tcaccgagct cctagacaac attgtgagct tgacgacagc agagagcgag
660
agctttgttc tggatttttc ccagccctct gcagattact tagactttag aaatcgactt
720
caggccgacc acgtctgcct t
741

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<210> 4038

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

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Met Ala Val Asp Ile Glu Tyr Arg Tyr Asn Cys Met Ala Pro Ser Leu
 1           5           10           15
Arg Gln Glu Arg Phe Ala Phe Lys Ile Ser Pro Lys Pro Ser Lys Pro
      20           25           30
Leu Arg Pro Cys Ile Gln Leu Ser Ser Lys Asn Glu Ala Ser Gly Met
      35           40           45
Val Ala Pro Ala Val Gln Glu Lys Lys Val Lys Lys Arg Val Ser Phe
      50           55           60
Ala Asp Asn Gln Gly Leu Ala Leu Thr Met Val Lys Val Phe Ser Glu
      65           70           75           80
Phe Asp Asp Pro Leu Asp Met Pro Phe Asn Ile Thr Glu Leu Leu Asp
      85           90           95
Asn Ile Val Ser Leu Thr Thr Ala Glu Ser Glu Ser Phe Val Leu Asp
      100          105          110
Phe Ser Gln Pro Ser Ala Asp Tyr Leu Asp Phe Arg Asn Arg Leu Gln
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Ala Asp His Val Cys Leu
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<210> 4039

<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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gagcgaggag ccctcgacg cgctagtctg cgagtgagcg ctcagcccgg cacctgttcc
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240
tgcatgaat ccggccctag gcaaccagac ggacgtggcg ggccttcctg gccaacagca
300
gcgaggcgct ggagcgagcc gtgcgctgct gcaccagggc gtccgtggcg accgacgacg
360
gcttcgcgga gggaggcccc gacgagcgta gcctgtacat aatgcgcgtg gtgcagatcg
420
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480
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cccagcctg ccacttttg tagcccggt gtgccccca ctatcagaga ctgggcgaag
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720
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1200
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1260
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1380
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1500

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1503

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<211> 100
<212> PRT
<213> Homo sapiens

<400> 4040
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20 25 30
Ser Leu Arg Val Ser Ala Gln Pro Gly Thr Cys Ser Ser Ser Ala Ala
35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
85 90 95
Arg Arg Pro Trp
100

<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4041
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120
tgtgttgcca attcagatga acagcttggg gagatgtttc tggaagaaaa aatcccctcg
180
atttctgatt taaagctagc aattcgaaga gctactctga aaagatcatt tactcctgta
240
tttttgggaa ggccttgaa gaacaaagga gttcagcctc ttttagatgc tgttttagaa
300
tacctcccaa atccatctga agtccagaac tatgctattc tcaataaaga ggatgactca
360
aaagagaaaa ccaaaatcct aatgaactcc agtagagaca attcccaccc atttgtaggc
420
ctggctttta aactggaggt aggtcgattt ggacaattaa cttatgttcg cagttatcag
480
ggagagctaa agaaggggtga caccatctat aacacaagga caagaaagaa agtacgggtg
540
caacggctgg ctcgcatgca tgccgacatg atg
573

<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

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Asp Leu Ile Glu Glu Arg Ala Ile Tyr Phe Asp Gly Asp Phe Gly Gln
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Ile Val Arg Tyr Gly Glu Ile Pro Ala Glu Leu Arg Ala Ala Ala Thr
          20          25          30
Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
          35          40          45
Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
          50          55          60
Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
65          70          75          80
Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
          85          90          95
Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
          100         105         110
Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
          115         120         125
Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
          130         135         140
Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
          145         150         155         160
Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
          165         170         175
Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
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<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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120
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180
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240
ctagtgaaaa agcgaattga gctcaaacat gacaagaaag caagagctat ggccaagagg
300
acaaaggata atttccatgg ttacaatggg attcctattg aggaaaagtc aaagaagagg
360
caggcaacag aaagccatac cagccaagga accgaccgag agtatgaaat ggaagaagag
420
aatgaattcc tcgagtacaa tcacgcagag tcagagcagg agtatgagga agagcaagaa
480
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540
ttcactgatt tactcaggct ggctgagaaa aagcagtttg aaccagtgga aatcaaggta
600

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gtgaagaaat cagaagagcg acctatgacc gcagaagaac ttagggagcg agaattcctt
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 720
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<210> 4044
 <211> 219
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Arg Lys Glu Glu Glu Leu Arg Arg Lys Ala Leu Glu Glu Lys Arg Arg
 35 40 45
 Lys Glu Glu Leu Val Lys Lys Arg Ile Glu Leu Lys His Asp Lys Lys
 50 55 60
 Ala Arg Ala Met Ala Lys Arg Thr Lys Asp Asn Phe His Gly Tyr Asn
 65 70 75 80
 Gly Ile Pro Ile Glu Lys Ser Lys Lys Arg Gln Ala Thr Glu Ser
 85 90 95
 His Thr Ser Gln Gly Thr Asp Arg Glu Tyr Glu Met Glu Glu Glu Asn
 100 105 110
 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu
 115 120 125
 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys
 130 135 140
 Gly Ala Pro Pro Pro Met Asn Phe Thr Asp Leu Leu Arg Leu Ala Glu
 145 150 155 160
 Lys Lys Gln Phe Glu Pro Val Glu Ile Lys Val Val Lys Lys Ser Glu
 165 170 175
 Glu Arg Pro Met Thr Ala Glu Glu Leu Arg Glu Arg Glu Phe Leu Glu
 180 185 190
 Arg Lys His Arg Arg Lys Lys Leu Glu Thr Asp Gly Lys Leu Pro Pro
 195 200 205
 Thr Val Ser Lys Lys Ala Pro Leu Gly Arg Lys
 210 215

<210> 4045
 <211> 2217
 <212> DNA
 <213> Homo sapiens

<400> 4045
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 120
 aattgaaaaa aacttagaat tttaaagctg agaaagagtt atcgctgtga tgattttgtg
 180

gttaatgaca ccaagctggg actggtacag aaagtcagag aacacttaca gaacttggaa
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420
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480
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720
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780
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840
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1140
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1560
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1620
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 1920
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 1980
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 2100
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<210> 4046

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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			20					25					30		
His	Leu	Gln	Asn	Leu	Glu	Asn	Ser	Ala	Phe	Thr	Ala	Asp	Arg	His	Lys
		35				40					45				
Lys	Arg	Lys	Leu	Leu	Glu	Asn	Ser	Thr	Leu	Asn	Ser	Lys	Leu	Leu	Lys
	50					55					60				
Val	Asn	Gly	Ser	Thr	Thr	Ala	Ile	Cys	Ala	Thr	Gly	Leu	Arg	Asn	Leu
65					70					75				80	
Gly	Asn	Thr	Cys	Phe	Met	Asn	Ala	Ile	Leu	Gln	Ser	Leu	Ser	Asn	Ile
			85					90						95	
Glu	Gln	Phe	Cys	Cys	Tyr	Phe	Lys	Glu	Leu	Pro	Ala	Val	Glu	Leu	Arg
			100					105					110		
Asn	Gly	Lys	Thr	Ala	Gly	Arg	Arg	Thr	Tyr	His	Thr	Arg	Ser	Gln	Gly
	115					120						125			
Asp	Asn	Asn	Val	Ser	Leu	Val	Glu	Glu	Phe	Arg	Lys	Thr	Leu	Cys	Ala
	130					135					140				
Leu	Trp	Gln	Gly	Ser	Gln	Thr	Ala	Phe	Ser	Pro	Glu	Ser	Leu	Phe	Tyr
145					150					155				160	
Val	Val	Trp	Lys	Ile	Met	Pro	Asn	Phe	Arg	Gly	Tyr	Gln	Gln	Gln	Asp
			165					170						175	
Ala	His	Glu	Phe	Xaa	Ala	Leu	Pro	Phe	Gly	Pro	Pro	Thr	Leu	Gly	Xaa
			180					185					190		
Phe	Arg	Ala	Val	Ser	Thr	Val	Phe	Pro	Ala	Gln	Gln	Phe	Cys	Arg	Arg
	195					200						205			
Ile	Leu	Leu	Cys	Leu	Gln	Val	Xaa	Lys	Cys	Cys	Ile	Asn	Gly	Ala	Ser
	210					215					220				
Thr	Val	Val	Thr	Ala	Ile	Phe	Gly	Gly	Ile	Leu	Gln	Asn	Glu	Val	Asn
225					230					235				240	
Cys	Leu	Ile	Cys	Gly	Thr	Glu	Ser	Arg	Lys	Phe	Asp	Pro	Phe	Leu	Asp
			245					250						255	
Leu	Ser	Leu	Asp	Ile	Pro	Ser	Gln	Phe	Arg	Ser	Lys	Arg	Ser	Lys	Asn

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<210> 4047
<211> 809
<212> DNA
<213> Homo sapiens
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420
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720

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 809

<210> 4048

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4048

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			20					25					30		
Val	Ala	Ile	Gly	Phe	Thr	Gly	Gly	Leu	Val	Phe	Met	Tyr	Val	Gln	Cys
		35					40					45			
Lys	Val	Tyr	Val	Gln	Leu	Trp	Arg	Arg	Leu	Lys	Ala	Tyr	Asn	Arg	Val
		50				55					60				
Ile	Phe	Val	Gln	Asn	Cys	Pro	Asp	Thr	Ala	Lys	Lys	Leu	Glu	Lys	Asn
65				70						75				80	
Phe	Ser	Cys	Asn	Val	Asn	Thr	Asp	Ile	Lys	Asp	Ala	Val	Val	Val	Pro
			85						90				95		
Val	Pro	Gln	Thr	Gly	Ala	Asn	Ser	Leu	Pro	Ser	Ala	Glu	Gly	Gly	Pro
			100					105					110		
Pro	Glu	Val	Val	Ser	Val										
			115												

<210> 4049

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4049

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 480
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 600

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 780
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 aagatccagc tagaagacat taagaattat caggaagccc ttcgatacat cggcaagctg
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 1080
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<210> 4050

<211> 403

<212> PRT

<213> Homo sapiens

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Glu	Cys	Val	Tyr	Leu	Tyr	Gln	Pro	Asp	Glu	Arg	Gly	Pro	Cys	Phe	Ala
			20					25					30		
Phe	Glu	Gly	His	Lys	Leu	Ile	Ala	His	Trp	Phe	Arg	Gly	Tyr	Leu	Ile
		35					40					45			
Ile	Val	Ser	Arg	Asp	Arg	Lys	Val	Ser	Pro	Lys	Ser	Glu	Phe	Thr	Ser
		50				55					60				
Arg	Asp	Ser	Gln	Ser	Ser	Asp	Lys	Gln	Ile	Leu	Asn	Ile	Tyr	Asp	Leu
65					70				75				80		
Cys	Asn	Lys	Phe	Ile	Ala	Tyr	Ser	Thr	Val	Phe	Glu	Asp	Val	Val	Asp
			85						90				95		
Val	Leu	Ala	Glu	Trp	Gly	Ser	Leu	Tyr	Val	Leu	Thr	Arg	Asp	Gly	Arg
			100					105					110		
Val	His	Ala	Leu	Gln	Glu	Lys	Asp	Thr	Gln	Thr	Lys	Leu	Glu	Met	Leu
		115					120					125			
Phe	Lys	Lys	Asn	Leu	Phe	Glu	Met	Ala	Ile	Asn	Leu	Ala	Lys	Ser	Gln
		130					135					140			
His	Leu	Asp	Ser	Asp	Gly	Leu	Ala	Gln	Ile	Phe	Met	Gln	Tyr	Gly	Asp
145					150				155					160	
His	Leu	Tyr	Ser	Lys	Gly	Asn	His	Asp	Gly	Ala	Val	Gln	Gln	Tyr	Ile
			165						170					175	
Arg	Thr	Ile	Gly	Lys	Leu	Glu	Pro	Ser	Tyr	Val	Ile	Arg	Lys	Phe	Leu
			180					185					190		
Asp	Ala	Gln	Arg	Ile	His	Asn	Leu	Thr	Ala	Tyr	Leu	Gln	Thr	Leu	His

195	200	205
Arg Gln Ser Leu Ala Asn Ala Asp His Thr Thr	Leu Leu Leu Asn Cys	
210	215	220
Tyr Thr Lys Leu Lys Asp Ser Ser Lys Leu Glu Glu Phe Ile Lys Lys		
225	230	235
Lys Ser Glu Ser Glu Val His Phe Asp Val Glu Thr Ala Ile Lys Val		
245	250	255
Leu Arg Gln Ala Gly Tyr Tyr Ser His Ala Leu Tyr Leu Ala Glu Asn		
260	265	270
His Ala His His Glu Trp Tyr Leu Lys Ile Gln Leu Glu Asp Ile Lys		
275	280	285
Asn Tyr Gln Glu Ala Leu Arg Tyr Ile Gly Lys Leu Pro Phe Glu Gln		
290	295	300
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<212> PRT

<213> Homo sapiens

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 Gln Ala Gln Glu Trp Asp Met Asp Ala Arg Arg Pro Met Pro Phe Gln
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 Phe Pro Pro Phe Pro Asp Arg Ala Pro Val Phe Pro Asp Arg Met Met
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 Ala Ala Ile Gln Ala Met Glu Arg Lys Ile Glu Ser Gln Ala Ala His

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Trp Ala Val Leu Gly Thr Leu Leu Gln Glu Tyr Gly Leu Leu Gln Arg
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Pro Tyr Pro Trp Gly Pro Arg Asp Ser Met Asp Gly Glu Leu Gly Leu
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Ile Ile His His Arg Ser His Thr Lys Glu Arg Pro Tyr Glu Cys Ala

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Gly Glu Arg Pro Phe Gln Cys Ala Leu Cys Gly Lys Ser Phe Ile Arg
      645      650      655
Lys Gln Asn Leu Leu Lys His Gln Arg Ile His Thr Gly Glu Arg Pro
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Tyr Thr Cys Gly Glu Cys Gly Lys Ser Phe Arg Tyr Lys Glu Ser Leu
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<400> 4064

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Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
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Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
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Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
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Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
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His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn
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Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
      165          170          175
Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser Gln His Ile
      180          185          190
Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
      195          200          205
Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met
      210          215          220
Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp Asp Ser Met
      225          230          235          240
Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Asp Asn Thr
      245          250          255
Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly
      260          265          270
Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile Arg Val Pro
      275          280          285
Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
      290          295          300
Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly
      305          310          315          320
Leu Asp Ile Pro Ala Asp Met Asp Gly Lys Ser Ile Leu Lys Leu Leu
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Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys Lys Met Arg
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Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys
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3253

3254

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<212> PRT

<213> Homo sapiens

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Arg	Lys	Ile	Pro	Cys	Asp	Val	Thr	Glu	Ala	Glu	Ile	Ile	Ser	Leu	Gly
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Gln	Ala	Phe	Leu	Glu	Met	Ala	Ser	Glu	Glu	Ala	Ala	Val	Thr	Met	Val
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Asn	Tyr	Tyr	Thr	Pro	Ile	Thr	Pro	His	Leu	Arg	Ser	Gln	Pro	Val	Tyr
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Ile	Gln	Tyr	Ser	Asn	His	Arg	Glu	Leu	Lys	Thr	Asp	Asn	Leu	Pro	Asn
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Pro	Gly	Gln	Ser	Pro	Val	Leu	Arg	Ile	Ile	Ile	Glu	Asn	Leu	Phe	Tyr

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Leu Gln Tyr Ala Asp Pro Val Asn Ala His Tyr Ala Lys Met Ala Leu
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Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
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Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
225          230          235          240
Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu
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Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser
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Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
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Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
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Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe
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<211> 714

<212> DNA

<213> Homo sapiens

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<210> 4070

<211> 113

<212> PRT

<213> Homo sapiens

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Phe	Gln	His	Thr	Gln	His	Leu	Ala	Ile	Ser	Lys	His	Asn	Leu	Met	Phe
			20					25					30		
Leu	Tyr	Thr	Ile	Phe	Ile	Val	Ala	Thr	Lys	Ile	Thr	Met	Met	Thr	Thr
			35					40					45		
Gln	Thr	Ser	Thr	Met	Thr	Phe	Ala	Pro	Phe	Glu	Asp	Thr	Leu	Ser	Trp
			50					55					60		
Met	Leu	Phe	Gly	Trp	Gln	Gln	Pro	Phe	Ser	Ser	Cys	Glu	Lys	Lys	Ser
65					70					75				80	
Glu	Ala	Lys	Ser	Pro	Ser	Asn	Gly	Val	Gly	Ser	Leu	Ala	Ser	Lys	Pro
				85						90				95	
Val	Asp	Val	Ala	Ser	Asp	Asn	Val	Lys	Lys	Lys	His	Thr	Lys	Lys	Asn
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Glu															

<210> 4071

<211> 601

<212> DNA

<213> Homo sapiens

<400> 4071

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 180
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 420
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 480
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<210> 4072

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4072

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Cys	Ala	Leu	Val	Pro	Arg	Leu	Val	Arg	Met	Lys	Val	Phe	His	Leu	Ser
			20					25					30		
Leu	Ser	Gln	Ser	Val	Val	Leu	Arg	His	His	Trp	Ile	Leu	Pro	Phe	Val
			35					40					45		
Gln	Ala	Leu	Lys	Ala	Arg	Met	Thr	Ser	Phe	His	Arg	Phe	Phe	Phe	Thr
			50				55				60				
Ala	Asn	Gln	Val	Lys	Ile	Tyr	Thr	Asn	Gln	Glu	Lys	Thr	Arg	Thr	Phe
65					70					75					80
Ile	Gly	Leu	Glu	Val	Thr	Ser	Gly	His	Ala	Gln	Phe	Leu	Asp	Leu	Val
				85					90					95	
Ser	Glu	Val	Asp	Arg	Val	Met	Glu	Glu	Phe	Asn	Leu	Thr	Thr	Phe	Tyr
			100						105					110	
Gln	Asp	Pro	Ser	Phe	His	Leu	Ser	Leu	Ala	Trp	Cys	Val	Gly	Asp	Ala
			115					120					125		
Arg	Leu	Gln	Leu	Glu	Gly	Gln	Cys	Leu	Gln	Glu	Leu	Gln	Ala	Ile	Val
			130				135						140		
Asp	Gly	Phe	Glu	Asp	Ala	Glu	Val	Leu	Leu	Arg	Val	His	Thr	Glu	Gln
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Val	Arg	Cys	Lys	Ser	Gly	Asn	Lys	Phe	Phe	Ser	Met	Pro	Leu	Lys	
				165					170					175	

<210> 4073

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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240
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300
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360
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420
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480
gagacaacaa atagcatggt agaatcaatt aaactctgca ttgtgttgct gcagattgcc
540
aaagaccaga gtaatgcgga gaagcacgca gatggaatga taagtactat taatcccgt
600
gatgcaatat atcaacctag tcttttgaa cctgtgatca gcacaatgcc ttcccagact
660
gtgttacctc cagaacctgt tcagttgtgt aagtcagagc agcgtccatc ttccctacca
720
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780
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960
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1140
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1440
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1500

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 1740
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 1864

<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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			20					25				30			
Asn	Pro	Val	Asp	Ala	Ile	Tyr	Gln	Pro	Ser	Pro	Leu	Glu	Pro	Val	Ile
		35				40					45				
Ser	Thr	Met	Pro	Ser	Gln	Thr	Val	Leu	Pro	Pro	Glu	Pro	Val	Gln	Leu
	50				55					60					
Cys	Lys	Ser	Glu	Gln	Arg	Pro	Ser	Ser	Leu	Pro	Val	Gly	Pro	Val	Leu
65				70					75					80	
Ala	Thr	Leu	Gly	His	His	Gln	Thr	Pro	Thr	Pro	Asn	Ser	Thr	Gly	Ser
				85				90						95	
Gly	His	Ser	Pro	Pro	Ser	Ser	Ser	Leu	Thr	Ser	Pro	Ser	His	Val	Asn
			100					105					110		
Leu	Ser	Pro	Asn	Thr	Val	Pro	Glu	Phe	Ser	Tyr	Ser	Ser	Ser	Glu	Asp
		115					120					125			
Glu	Phe	Tyr	Asp	Ala	Asp	Glu	Phe	His	Gln	Ser	Gly	Ser	Ser	Pro	Lys
	130					135					140				
Arg	Leu	Ile	Asp	Ser	Ser	Gly	Ser	Ala	Ser	Val	Leu	Thr	His	Ser	Ser
145				150						155					160
Ser	Gly	Asn	Ser	Leu	Lys	Arg	Pro	Asp	Thr	Thr	Glu	Ser	Leu	Asn	Ser
			165						170					175	
Ser	Leu	Ser	Asn	Gly	Thr	Ser	Asp	Ala	Asp	Leu	Phe	Asp	Ser	His	Asp
			180					185						190	
Asp	Arg	Asp	Asp	Asp	Ala	Glu	Ala	Gly	Ser	Val	Glu	Glu	His	Lys	Ser
		195				200						205			
Val	Ile	Met	His	Leu	Leu	Ser	Gln	Val	Arg	Leu	Gly	Met	Asp	Leu	Thr
	210					215					220				
Lys	Val	Val	Leu	Pro	Thr	Phe	Ile	Leu	Glu	Arg	Arg	Ser	Leu	Leu	Glu
225					230					235					240
Met	Tyr	Ala	Asp	Phe	Phe	Ala	His	Pro	Asp	Leu	Phe	Val	Ser	Ile	Ser
			245						250					255	
Asp	Gln	Lys	Asp	Pro	Lys	Asp	Arg	Met	Val	Gln	Val	Val	Lys	Trp	Tyr

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                260                265                270
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                275                280                285
Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
                290                295                300
Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
305                310                315                320
Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
                325                330                335
His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
                340                345                350
Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
                355                360                365
Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
                370                375                380
Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile
385                390                395                400
Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
                405                410                415
Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe
                420                425                430
Tyr Gly Gly Lys Lys His Arg Ile Thr Ala Glu Ile Phe Ser Pro Asn
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Asp Lys Lys Ser Phe Cys Ser Ile
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<210> 4075

<211> 2492

<212> DNA

<213> Homo sapiens

<400> 4075

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120
gtgcacatat ccagggtaaa gtcagttaac ctgcaccagt ggactcaaga acagattcag
180
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300
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360
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420
aagggtgaaa tgccacagaa aaaagaagac ccacagctac ctcggaagaa cccccgaaa
480
tccacagcgc ctgtcatgga tttgttgggc cttgatgctc ctgtggcctg ctccattgca
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aatagtaaga ccagcaatac cctagagaag gatttagatc tgttggcctc tgttccatcc
600
ccttcttctt cgggttccag aaagggtgta ggttccatgc caactgcagg gagtgccggc
660

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780
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840
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1020
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<210> 4076

<211> 410

<212> PRT

<213> Homo sapiens

<400> 4076

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			20					25					30		
Ala	Gly	Ile	His	Arg	Asn	Leu	Gly	Val	His	Ile	Ser	Arg	Val	Lys	Ser
		35					40					45			
Val	Asn	Leu	Asp	Gln	Trp	Thr	Gln	Glu	Gln	Ile	Gln	Cys	Met	Gln	Glu
	50					55					60				
Met	Gly	Asn	Gly	Lys	Ala	Asn	Arg	Leu	Tyr	Glu	Ala	Tyr	Leu	Pro	Glu
65				70					75					80	
Thr	Phe	Arg	Arg	Pro	Gln	Ile	Asp	Pro	Ala	Val	Glu	Gly	Phe	Ile	Arg
			85						90					95	
Asp	Lys	Tyr	Glu	Lys	Lys	Lys	Tyr	Met	Asp	Arg	Ser	Leu	Asp	Ile	Asn
			100					105					110		
Ala	Phe	Arg	Lys	Glu	Lys	Asp	Asp	Lys	Trp	Lys	Arg	Gly	Ser	Glu	Pro
			115				120					125			
Val	Pro	Glu	Lys	Lys	Leu	Glu	Pro	Val	Val	Phe	Glu	Lys	Val	Lys	Met
		130				135					140				
Pro	Gln	Lys	Lys	Glu	Asp	Pro	Gln	Leu	Pro	Arg	Lys	Ser	Ser	Pro	Lys
145				150						155				160	
Ser	Thr	Ala	Pro	Val	Met	Asp	Leu	Leu	Gly	Leu	Asp	Ala	Pro	Val	Ala
				165					170					175	
Cys	Ser	Ile	Ala	Asn	Ser	Lys	Thr	Ser	Asn	Thr	Leu	Glu	Lys	Asp	Leu
			180					185					190		
Asp	Leu	Leu	Ala	Ser	Val	Pro	Ser	Pro	Ser	Ser	Ser	Gly	Ser	Arg	Lys
		195					200					205			
Val	Val	Gly	Ser	Met	Pro	Thr	Ala	Gly	Ser	Ala	Gly	Ser	Val	Pro	Glu
		210				215					220				
Asn	Leu	Asn	Leu	Phe	Pro	Glu	Pro	Gly	Ser	Lys	Ser	Glu	Glu	Ile	Gly
225				230					235					240	
Lys	Lys	Gln	Leu	Ser	Lys	Asp	Ser	Ile	Leu	Ser	Leu	Tyr	Gly	Ser	Gln
			245						250				255		
Thr	Pro	Gln	Met	Pro	Thr	Gln	Ala	Met	Phe	Met	Ala	Pro	Ala	Gln	Met
			260					265					270		
Ala	Tyr	Pro	Thr	Ala	Tyr	Pro	Ser	Phe	Pro	Gly	Val	Thr	Pro	Pro	Asn
		275					280					285			
Ser	Ile	Met	Gly	Ser	Met	Met	Pro	Pro	Pro	Val	Gly	Met	Val	Ala	Gln
		290				295					300				
Pro	Gly	Ala	Ser	Gly	Met	Val	Ala	Pro	Met	Ala	Met	Pro	Ala	Gly	Tyr

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Thr Val Tyr Gly Val Gln Pro Ala Gln Gln Leu Gln Trp Asn Leu Thr
          355          360          365
Gln Met Thr Gln Gln Met Ala Gly Met Asn Phe Tyr Gly Ala Asn Gly
          370          375          380
Met Met Asn Tyr Gly Gln Ser Met Ser Gly Gly Asn Gly Gln Ala Ala
385          390          395          400
Asn Gln Thr Leu Ser Pro Gln Met Trp Lys
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<210> 4077
 <211> 684
 <212> DNA
 <213> Homo sapiens

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<400> 4077
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<210> 4078
 <211> 194
 <212> PRT
 <213> Homo sapiens

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<400> 4078
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 35 40 45
 Ile Arg Lys Leu Arg Gln Asp Ile Leu Leu Met Lys Pro Tyr Phe Ile
 50 55 60
 Thr Cys Arg Glu Ala Met Glu Ala Arg Leu Leu Leu Gln Leu Gln Asp
 65 70 75 80
 Arg Gln His Phe Val Glu Asn Asp Glu Met Tyr Ser Val Gln Asp Leu
 85 90 95
 Leu Asp Val His Ala Gly Arg Leu Gly Cys Ser Leu Thr Glu Ile His
 100 105 110
 Thr Leu Phe Ala Lys His Ile Lys Leu Asp Cys Glu Arg Cys Gln Ala
 115 120 125
 Lys Gly Phe Val Cys Glu Leu Cys Arg Glu Gly Asp Val Leu Phe Pro
 130 135 140
 Phe Asp Ser His Thr Ser Val Cys Ala Asp Cys Ser Ala Val Phe His
 145 150 155 160
 Arg Asp Cys Tyr Tyr Asp Asn Ser Thr Thr Cys Pro Lys Cys Ala Arg
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 Leu Ser Leu Arg Lys Gln Ser Leu Phe Gln Glu Pro Gly Pro Asp Val
 180 185 190
 Glu Ala

<210> 4079

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4079

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 660
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 720

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 780
 nta
 783

<210> 4080
 <211> 101
 <212> PRT
 <213> Homo sapiens

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 Ile Cys Lys Glu Arg Arg Leu Cys Arg Trp Glu Leu Phe Thr Gln Ala
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 Leu Thr Pro Ser Val Cys Leu Pro Ser Lys Leu His Cys Pro Asn Arg
 35 40 45
 Glu Ala Leu His Ala Gln Pro Gly Glu Gln Gly Trp Met Gly Leu Lys
 50 55 60
 Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
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 His Ala Arg Thr Lys
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<210> 4081
 <211> 645
 <212> DNA
 <213> Homo sapiens

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<210> 4082
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<400> 4082
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 Thr Met Glu Gln Ile Phe Met Asn Val Ala Ile Phe Glu Asp Glu Val
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 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
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 Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro
 85 90 95
 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
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 Thr Pro Gln Ser Pro Leu Val Arg Pro Ser Met Tyr Asp Tyr Tyr Asp
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 Met Asp Asn Tyr Pro Ile Gly Thr Asn Ala Ile Val Ala Val Ile Ser
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 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
 165 170 175
 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
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<210> 4083
 <211> 2983
 <212> DNA
 <213> Homo sapiens

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<210> 4084

<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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			20					25					30		
Val	Tyr	Gly	Leu	Asn	Phe	Ala	Ser	Lys	Glu	Glu	Ala	Thr	Thr	Phe	Ser
		35					40					45			
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		50				55					60				
Pro	Ser	Ser	Gln	Arg	Gln	Val	Gln	Asn	Gly	Pro	Ser	Pro	Asp	Glu	Met
65					70				75					80	
Asp	Ile	Gln	Arg	Arg	Gln	Val	Met	Glu	Gln	His	Gln	Gln	Gln	Arg	Gln
				85					90				95		
Glu	Ser	Leu	Glu	Arg	Arg	Thr	Ser	Ala	Thr	Gly	Pro	Ile	Leu	Pro	Pro

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145      150      155      160
His Asp Glu Ser Ser Met Ser Gly Leu Ala Ala Ala Ile Ala Gly Ala
      165      170      175
Lys Leu Arg Arg Val Gln Arg Pro Glu Asp Ala Ser Gly Gly Ser Ser
      180      185      190
Pro Ser Gly Thr Ser Lys Ser Asp Ala Asn Arg Ala Ser Ser Gly Gly
      195      200      205
Gly Gly Gly Gly Leu Met Glu Glu Met Asn Lys Leu Leu Ala Lys Arg
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Arg Lys Ala Ala Ser Gln Ser Asp Lys Pro Ala Glu Lys Lys Glu Asp
225      230      235      240
Glu Ser Gln Met Glu Asp Pro Ser Thr Ser Pro Ser Pro Gly Thr Arg
      245      250      255
Ala Ala Ser Gln Pro Pro Asn Ser Ser Glu Ala Gly Arg Lys Pro Trp
      260      265      270
Glu Arg Ser Asn Ser Val Glu Lys Pro Val Ser Ser Ile Leu Ser Arg
      275      280      285
Thr Pro Ser Val Ala Lys Ser Pro Glu Ala Lys Ser Pro Leu Gln Ser
      290      295      300
Gln Pro His Ser Arg Met Lys Pro Ala Gly Ser Val Asn Asp Met Ala
305      310      315      320
Leu Asp Ala Phe Asp Leu Asp Arg Met Lys Gln Glu Ile Leu Glu Glu
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Val Val Arg Glu Leu His Lys Val Lys Glu Glu Ile Ile Asp Ala Ile
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Arg Gln Glu Leu Ser Gly Ile Ser Thr Thr
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<210> 4085

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4085

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420

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<210> 4086

<211> 789

<212> PRT

<213> Homo sapiens

<400> 4086

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			20					25					30		
Phe	Leu	Leu	Val	Phe	Ala	Ile	Ala	Ala	Ala	Ala	Tyr	Val	Trp	Ile	Glu
			35				40					45			
Gly	Thr	Lys	Asp	Pro	Ser	Arg	Asn	Arg	Tyr	Lys	Leu	Phe	Leu	Glu	Cys
			50			55					60				
Thr	Leu	Ile	Leu	Thr	Ser	Val	Val	Pro	Pro	Glu	Leu	Pro	Ile	Glu	Leu
65					70					75				80	
Ser	Leu	Ala	Val	Asn	Thr	Ser	Leu	Ile	Ala	Leu	Ala	Lys	Leu	Tyr	Met
			85					90					95		
Tyr	Cys	Thr	Glu	Pro	Phe	Arg	Ile	Pro	Phe	Ala	Gly	Lys	Val	Glu	Val
			100					105					110		
Cys	Cys	Phe	Asp	Lys	Thr	Gly	Thr	Leu	Thr	Ser	Asp	Ser	Leu	Val	Val
		115				120					125				
Arg	Gly	Val	Ala	Gly	Leu	Arg	Asp	Gly	Lys	Glu	Val	Thr	Pro	Val	Ser
		130			135					140					
Ser	Ile	Pro	Val	Glu	Thr	His	Arg	Ala	Leu	Ala	Ser	Cys	His	Ser	Leu
145				150				155						160	
Met	Gln	Leu	Asp	Asp	Gly	Thr	Leu	Val	Gly	Asp	Pro	Leu	Glu	Lys	Ala
			165					170					175		
Met	Leu	Thr	Ala	Val	Asp	Trp	Thr	Leu	Thr	Lys	Asp	Glu	Lys	Val	Phe
			180					185				190			
Pro	Arg	Ser	Ile	Lys	Thr	Gln	Gly	Leu	Lys	Ile	His	Gln	Arg	Phe	His

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Glu Thr Leu His Ser Met Phe Ser Gln Cys Pro Pro Asp Tyr His His
      245              250              255
Ile His Thr Glu Ile Ser Arg Glu Gly Ala Arg Val Leu Ala Leu Gly
      260              265              270
Tyr Lys Glu Leu Gly His Leu Thr His Gln Gln Ala Arg Glu Val Lys
      275              280              285
Arg Glu Ala Leu Glu Cys Ser Leu Lys Phe Val Gly Phe Ile Val Val
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Ser Cys Pro Leu Lys Ala Asp Ser Lys Ala Val Ile Arg Glu Ile Gln
305              310              315              320
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Ala Cys His Val Ala Gln Glu Leu His Phe Ile Glu Lys Ala His Thr
      340              345              350
Leu Ile Leu Gln Pro Pro Ser Glu Lys Gly Arg Gln Cys Glu Trp Arg
      355              360              365
Ser Ile Asp Gly Ser Ile Val Leu Pro Leu Xaa Pro Gly Ala Pro Gln
      370              375              380
Arg His Trp Pro Trp Ser Thr His Xaa Cys Leu Thr Gly Asp Gly Leu
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Ala His Leu Gln Ala Thr Asp Pro Gln Gln Leu Leu Arg Leu Ile Pro
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His Val Gln Val Phe Ala Arg Val Ala Pro Lys Gln Lys Glu Phe Val
      420              425              430
Ile Thr Ser Leu Lys Glu Leu Gly Tyr Val Thr Leu Met Cys Gly Asp
      435              440              445
Gly Thr Asn Asp Val Gly Ala Leu Lys His Ala Asp Val Gly Val Ala
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Leu Leu Ala Asn Ala Pro Glu Arg Val Val Glu Arg Arg Arg Arg Pro
465              470              475              480
Arg Asp Ser Pro Thr Leu Ser Asn Ser Gly Ile Arg Ala Thr Ser Arg
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Thr Ala Lys Gln Arg Ser Gly Leu Pro Pro Ser Glu Glu Gln Pro Thr
      500              505              510
Ser Gln Arg Asp Arg Leu Ser Gln Val Leu Arg Asp Leu Glu Asp Glu
      515              520              525
Ser Thr Pro Ile Val Lys Leu Gly Asp Ala Ser Ile Ala Ala Pro Phe
      530              535              540
Thr Ser Lys Leu Ser Ser Ile Gln Cys Ile Cys His Val Ile Lys Gln
545              550              555              560
Gly Arg Cys Thr Leu Val Thr Thr Leu Gln Met Phe Lys Ile Leu Ala
      565              570              575
Leu Asn Ala Leu Ile Leu Ala Tyr Ser Gln Ser Val Leu Tyr Leu Glu
      580              585              590
Gly Val Lys Phe Ser Asp Phe Gln Ala Thr Leu Gln Gly Leu Leu Leu
      595              600              605
Ala Gly Cys Phe Leu Phe Ile Ser Arg Ser Lys Pro Leu Lys Thr Leu
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Ser Arg Glu Arg Pro Leu Pro Asn Ile Phe Asn Leu Tyr Thr Ile Leu

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          660          665          670
Val Asp Leu Tyr Lys Glu Phe Glu Pro Ser Leu Val Asn Ser Thr Val
          675          680          685
Tyr Ile Met Ala Met Ala Met Gln Met Ala Thr Phe Ala Ile Asn Tyr
          690          695          700
Lys Gly Pro Pro Phe Met Glu Ser Leu Pro Glu Asn Lys Pro Leu Val
705          710          715          720
Trp Ser Leu Ala Val Ser Leu Leu Ala Ile Ile Gly Leu Leu Gly
          725          730          735
Ser Ser Pro Asp Phe Asn Ser Gln Phe Gly Leu Val Asp Ile Pro Val
          740          745          750
Glu Phe Lys Leu Val Ile Ala Gln Val Leu Leu Leu Asp Phe Cys Leu
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Leu Lys Val Pro Ser
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<210> 4087

<211> 959

<212> DNA

<213> Homo sapiens

<400> 4087

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780

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<210> 4088

<211> 319

<212> PRT

<213> Homo sapiens

<400> 4088

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		20						25					30		
Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
		35					40					45			
Asp	Leu	Val	Met	Glu	Ala	Leu	Glu	Gly	Ile	Gln	Asn	Arg	Gly	His	
	50					55				60					
Gly	Gly	Gly	Phe	Leu	Thr	Ser	Cys	Glu	Ala	Glu	Leu	Gln	Glu	Leu	Met
65					70					75				80	
Lys	Gln	Ile	Asp	Ile	Met	Val	Ala	His	Lys	Lys	Ser	Glu	Trp	Glu	Gly
				85					90					95	
Arg	Thr	His	Ala	Leu	Glu	Thr	Cys	Leu	Lys	Ile	Arg	Glu	Gln	Glu	Leu
			100					105					110		
Lys	Ser	Leu	Arg	Ser	Gln	Leu	Asp	Val	Thr	His	Lys	Glu	Val	Gly	Met
	115					120						125			
Leu	His	Gln	Gln	Val	Glu	Glu	His	Glu	Lys	Ile	Lys	Gln	Glu	Met	Thr
	130					135					140				
Met	Glu	Tyr	Lys	Gln	Glu	Leu	Lys	Lys	Leu	His	Glu	Glu	Leu	Cys	Ile
145					150					155				160	
Leu	Lys	Arg	Ser	Tyr	Glu	Lys	Leu	Gln	Lys	Lys	Gln	Met	Arg	Glu	Phe
			165					170					175		
Arg	Gly	Asn	Thr	Lys	Asn	His	Arg	Glu	Asp	Arg	Ser	Glu	Ile	Glu	Arg
			180					185					190		
Leu	Thr	Ala	Lys	Ile	Glu	Glu	Phe	Arg	Gln	Lys	Ser	Leu	Asp	Trp	Glu
		195					200					205			
Lys	Gln	Arg	Leu	Ile	Tyr	Gln	Gln	Gln	Val	Ser	Ser	Leu	Glu	Ala	Gln
	210					215					220				
Arg	Lys	Ala	Leu	Ala	Glu	Gln	Ser	Glu	Ile	Ile	Gln	Ala	Gln	Leu	Val
225					230					235				240	
Asn	Arg	Lys	Gln	Lys	Leu	Glu	Ser	Val	Glu	Leu	Ser	Ser	Gln	Ser	Glu
			245						250					255	
Ile	Gln	His	Leu	Ser	Ser	Lys	Leu	Glu	Arg	Ala	Asn	Asp	Thr	Ile	Cys
		260						265					270		
Ala	Asn	Glu	Leu	Glu	Ile	Glu	Arg	Leu	Thr	Met	Arg	Val	Asn	Asp	Leu
		275					280					285			
Val	Gly	Thr	Ser	Met	Thr	Val	Leu	Gln	Glu	Gln	Gln	Gln	Lys	Glu	Glu
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Lys	Leu	Arg	Glu	Ser	Glu	Lys	Leu	Leu	Glu	Ala	Leu	Gln	Glu	Lys	
305					310					315					

<210> 4089
 <211> 511
 <212> DNA
 <213> Homo sapiens

<400> 4089
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 120
 aacctgtgg ggctggcccc tacacagttt ttaaggggta cagggaaggg aagaaacagg
 180
 caccatgtgg ggcaggggtt ctgcttctat catatttcca ttttgttggt ttaggagatc
 240
 cttccaactc tctaatacat tattttccag agaacaaaag aaaaactatg ctctccaaga
 300
 acatgtttcc tttgtaattt ttctgtcttc aaactttttc tggagagatg agtcatttga
 360
 cctgacattg agaataggct tgaagccctt tgagaggaca aaggagatag agtcagcatt
 420
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 480
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 511

<210> 4090
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 4090
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 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser
 35 40 45
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile
 50 55 60
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu
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 Ser Pro Cys Ser Glu Asp Pro Ser His Leu Val Thr Ala Pro Trp Ala
 85 90 95
 Val Tyr Phe His Cys Leu Trp Lys Ile Glu Tyr Thr Cys
 100 105

<210> 4091
 <211> 1526
 <212> DNA
 <213> Homo sapiens

<400> 4091
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120
caaggaaggg cccccgggag ctctatatgg aggaaggagc ccagaatggg gtgcaccagg
180
aagacaaaaa ctttgggtgct cacttgctg atcctgagcg gcatgactaa catcatctgc
240
ctgctctacg tgggctgggt caccaactac atcgccagcg tgtatgtgcg ggggcaggag
300
ccggcgcccc acaagaagct ggaggaagac aaaggggaca ctctgaagat tattgagcgg
360
ctggaccacc tggagaatgt catcaagcag cacattcaag gctataggag aaatttctcc
420
cttctgaatg tgtccaacta actctgttca cctgagaaat catattcccc agctctgggt
480
atccctgaat aaccacagga gaacagtcc aggcctgat aagtcagcta ttgcaagggg
540
gacctggctg gaagatatga aggaaaaata tcattcttga actaataagt tgagagatca
600
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780
gttgtttcat cctgtgtaga ctggagtcag ggtctacaca gttggaattc tatggaacca
840
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900
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960
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1020
tgcagtcctc tcccagggtt ggctagcagt attgttgggt accgtaagca cttagcattg
1080
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1140
taaagtatgc ttttagatgt tgacattcat gattattaaa aggaacaaaa ctcaatttgg
1200
ggtctcaaga gccacaattc tagacttcta ggatgtcagg agccatgctc ttaagcttct
1260
caccctgctg ttttaatgag attaatgatt attttccact gagcacctac ctgtgatgtt
1320
cataaaaaaag tgaaataaat gactcacatg gagatttggg aggatattcac tgtggaaagt
1380
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1440
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1526

<210> 4092

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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          20           25           30
Arg Gly Gly Val Arg Gly Ala Arg Gln Gly Arg Ala Pro Gly Ser Ser
          35           40           45
Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
          50           55           60
Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
65           70           75           80
Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
          85           90           95
Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
          100          105          110
Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
          115          120          125
Lys Gln His Ile Gln Gly Tyr Arg Arg Asn Phe Ser Leu Leu Asn Val
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Ser Asn
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<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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240
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gcacctaggg gcccggagca gccccgccc cggcgcgccg ccgacatggg caacgcaggg
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420
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480
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540
gatcaggaac gattccaggt gaagaatcct cccatacat acattcaaaa gctcaaaggc
600
tatctggatc cagctgtaac caggaagaaa ttcagacggc gtgttcaaga atctacacaa
660
gtgctaagag aactggaaat ttctttaaga actaaccaca ttggatgggt cagagaattt
720

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ctgaatgaag aaaacaaagg tcttgatgtt ctagtggaaat atctctcatt tgcacagtac
 780
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 960
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 1020
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 1080
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 1140
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 1200
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 1260
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 1320
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 1380
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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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His	Asn	Val	Pro	Leu	Lys	Leu	Pro	Met	Pro	Glu	Pro	Gly	Glu	Leu	Glu
		20						25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
	35						40				45				
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
	50				55						60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65				70					75					80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
		85						90					95		
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115					120					125			
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
	130				135						140				
Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser

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145          150          155          160
Ser Val Asp Lys Ser Lys Pro Trp Ser Arg Ser Ile Glu Asp Leu His
          165          170          175
Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser
          180          185          190
Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr
          195          200          205
Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys
          210          215          220
Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met
225          230          235          240
Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn
          245          250          255
Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala
          260          265          270
Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp
          275          280          285
Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met
          290          295          300
Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser
305          310          315          320
Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe
          325          330          335
Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr
          340          345          350
Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile
          355          360          365
Gln Ala Tyr Leu Asp Asn Val Phe Asp Val Gly Ala Leu Leu Glu Asp
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Ala Glu Thr Lys Asn Ala Ala
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<210> 4095

<211> 253

<212> DNA

<213> Homo sapiens

<400> 4095

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120
agagagatca agtagcatcc ccagcgaaat ctgaggcctc tggaggcgcc tgtgcacgtg
180
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253

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<210> 4096

<211> 83

<212> PRT

<213> Homo sapiens

<400> 4096

Met Gly Gly Gly Glu Gln Ala Ser Ala Gly Arg Val Pro Lys Arg Gln
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 Pro Arg Glu Gln Gly Gln Ile Val Gly Gly Phe Ser Ser Thr Val
 20 25 30
 Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
 35 40 45
 Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
 50 55 60
 Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
 65 70 75 80
 Cys Ala Arg

<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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 120
 cgtgctgtcc tcaattgttc tacaatgagt gccaaatctg ctatcagcaa ggaaattttt
 180
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 240
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 300
 acaaacaaga aaccacaca ggcgtccatc acaaaggcca aacagtttga aggtccaca
 360
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 420
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 480
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 540
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 780
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 900
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 960
 aatgatcttg ctaataaatg ctacaatagc atcagcttca ttttgggttt ttgcctctc
 1020

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 aacatgtatt tttttctctg atattaagca ggaaggcatt ttaatgtggt gacatcagat
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<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

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Glu	Pro	Arg	Ala	Leu	Gly	Arg	Val	Pro	Arg	Thr	Gly	Thr	Ala	Gly	Ala
			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
		35					40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
	50					55				60					
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
65				70					75					80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90					95		
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
	115						120				125				
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
	130					135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
145					150					155				160	
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165						170					175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
			180					185					190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
	195						200					205			
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
	210					215					220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225					230					235				240	
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
			245					250						255	

Lys Cys

<210> 4099
 <211> 511
 <212> DNA
 <213> Homo sapiens

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 120
 ttaaacaata aaaaattgta taatggaatt ggatcagggg gttcccaaaa ccccttcac
 180
 tgaggtttgg caattcactg agaaggactc acaggactca gcagatagtc atacttgggg
 240
 ctttgattta ttacatttaa tacagcaaaa agacacaaaag caacatttga gaaaggaaaa
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 360
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 420
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 511

<210> 4100
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4100
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 20 25 30
 Gly Phe Asp Leu Leu His Leu Ile Gln Gln Lys Asp Thr Lys Gln His
 35 40 45
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
 50 55 60
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
 65 70 75 80
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
 85 90 95
 Pro Glu Phe His
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<210> 4101
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 4101

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 120
 ccaggaaaga tggcacacgg cagacgacga caggaaggac acctgctccc cacccttccc
 180
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 300
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 360
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 420
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<210> 4102

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

Met	Cys	Leu	Leu	Ser	Trp	Thr	Arg	Ile	Ala	Val	Trp	Gly	Pro	Ser	Ala
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			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
			35				40					45			
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
			50				55				60				
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<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
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Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

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Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala	Thr
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Thr	Leu	Glu	Ser	Ala	Leu	Ile	Ala	Leu	Asp	Ser	Glu	Lys	Pro	Lys	Lys
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Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Ala	Glu
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Ala	Gly	His	Val	Asp	Ile	Cys	His	Met	Leu	Val	Gln	Ala	Gly	Ala	Asn
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His Ala Asn Lys Val Lys Val Leu Asp Ala Pro Val Pro Asp Cys Leu				
	100	105	110	
Gly Val His Cys Asp Phe His Gln Gly Leu Leu Ser Phe Tyr Asn Ala				
	115	120	125	
Arg Thr Lys Gln Val Leu His Thr Phe Lys Thr Arg Phe Thr Gln Pro				
	130	135	140	
Leu Leu Pro Ala Phe Thr Val Trp Cys Gly Ser Phe Gln Val Thr Thr				
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<210> 4107

<211> 1442

<212> DNA

<213> Homo sapiens

<400> 4107

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<211> 273

<212> PRT

<213> Homo sapiens

<400> 4108

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			20					25					30		
Val	Gln	Leu	Asp	Ala	Gln	Ala	Pro	Ser	Ser	Cys	Ser	Thr	Glu	Ala	Gln
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		50				55					60				
Lys	Asn	Tyr	Gly	Met	Thr	Arg	Met	Asp	Pro	Tyr	Cys	Arg	Leu	Arg	Leu
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			85					90					95		
Pro	Arg	Trp	Asn	Lys	Val	Ile	His	Cys	Thr	Val	Pro	Pro	Gly	Val	Asp
			100					105					110		
Ser	Phe	Tyr	Leu	Glu	Ile	Phe	Asp	Glu	Arg	Ala	Phe	Ser	Met	Asp	Asp
	115						120					125			
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			165					170					175		
Ala	Met	Val	Met	Pro	Pro	Gln	Pro	Val	Val	Leu	Met	Pro	Thr	Val	Tyr
			180					185					190		
Gln	Gln	Gly	Val	Gly	Tyr	Val	Pro	Ile	Thr	Gly	Met	Pro	Ala	Val	Cys
	195					200						205			
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Gln Pro Arg Cys Ser Glu Glu Asp Leu Lys Ala Ile Gln Asp Met Phe				
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Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln Arg				
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<210> 4109

<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4109

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<211> 375

<212> PRT

<213> Homo sapiens

<400> 4110

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			20					25					30		
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His	Ser	Arg	Lys	Ser	Leu	Cys	Arg	Ser	Arg	Glu	Glu	Leu	Arg	Gly	Lys
	50					55				60					
Val	Arg	Glu	Leu	Ala	Ser	Ala	Val	Arg	Asn	Ala	Lys	Tyr	Leu	Val	Val
65					70				75					80	
Tyr	Thr	Gly	Ala	Gly	Ile	Ser	Thr	Ala	Ala	Ser	Ile	Pro	Asp	Tyr	Arg
			85					90					95		
Gly	Pro	Asn	Gly	Val	Trp	Thr	Leu	Leu	Gln	Lys	Gly	Arg	Ser	Val	Ser
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Ala	Ala	Asp	Leu	Ser	Glu	Ala	Glu	Pro	Thr	Leu	Thr	His	Met	Ser	Ile
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Cys	Asp	Gly	Leu	His	Leu	Arg	Ser	Gly	Leu	Pro	Arg	Thr	Ala	Ile	Ser
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His	Arg	His	Gln	Thr	Gly	Arg	Thr	Cys	His	Lys	Cys	Gly	Thr	Gln	Leu
	195					200						205			
Arg	Asp	Thr	Ile	Val	His	Phe	Gly	Glu	Arg	Gly	Thr	Leu	Gly	Gln	Pro
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<212> DNA
<213> Homo sapiens
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<210> 4112
 <211> 775
 <212> PRT
 <213> Homo sapiens

<400> 4112
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 35 40 45
 Asp Lys Ala Thr Gly Ile Leu Leu Tyr Gly Leu Ala Ser Arg Leu Arg
 50 55 60
 Asp Thr Arg Arg Leu Ser Phe Leu Val Ser Tyr Ile Ala Ser Lys Lys
 65 70 75 80
 Ile His Thr Glu Pro Gln Leu Ser Ala Ala Leu Glu Tyr Val Arg Ser
 85 90 95
 His Pro Leu Asp Pro Ile Asp Thr Val Asp Phe Glu Arg Glu Cys Gly
 100 105 110
 Val Gly Val Ile Val Thr Pro Glu Gln Ile Glu Glu Ala Val Glu Ala
 115 120 125
 Ala Ile Asn Arg His Arg Pro Gln Leu Leu Val Glu Arg Tyr His Phe
 130 135 140
 Asn Met Gly Leu Leu Met Gly Glu Ala Arg Ala Val Leu Lys Trp Ala
 145 150 155 160
 Asp Gly Lys Met Ile Lys Asn Glu Val Asp Met Gln Val Leu His Leu
 165 170 175
 Leu Gly Pro Lys Leu Glu Ala Asp Leu Glu Lys Lys Phe Lys Val Ala
 180 185 190
 Lys Ala Arg Leu Glu Glu Thr Asp Arg Arg Thr Ala Lys Asp Val Val
 195 200 205
 Glu Asn Gly Glu Thr Ala Asp Gln Thr Leu Ser Leu Met Glu Gln Leu
 210 215 220
 Arg Gly Glu Ala Leu Lys Phe His Lys Pro Gly Glu Asn Tyr Lys Thr
 225 230 235 240
 Pro Gly Tyr Val Val Thr Pro His Thr Met Asn Leu Leu Lys Gln His
 245 250 255
 Leu Glu Ile Thr Gly Gly Gln Val Arg Thr Arg Phe Pro Pro Glu Pro
 260 265 270
 Asn Gly Ile Leu His Ile Gly His Ala Lys Ala Ile Asn Phe Asn Phe
 275 280 285
 Gly Tyr Ala Lys Ala Asn Asn Gly Ile Cys Phe Leu Arg Phe Asp Asp
 290 295 300
 Thr Asn Pro Glu Lys Glu Glu Ala Lys Phe Phe Thr Ala Ile Cys Asp
 305 310 315 320
 Met Val Ala Trp Leu Gly Tyr Thr Pro Tyr Lys Val Thr Tyr Ala Ser

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          340          345          350
Gly Leu Ala Tyr Val Cys His Gln Arg Gly Glu Glu Leu Lys Gly His
          355          360          365
Asn Thr Leu Pro Ser Pro Trp Arg Asp Arg Pro Met Glu Glu Ser Leu
          370          375          380
Leu Leu Phe Glu Ala Met Arg Lys Gly Lys Phe Ser Glu Gly Glu Ala
385          390          395          400
Thr Leu Arg Met Lys Leu Val Met Glu Asp Gly Lys Met Asp Pro Val
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Ala Tyr Arg Val Lys Tyr Thr Pro His His Arg Thr Gly Asp Lys Trp
          420          425          430
Cys Ile Tyr Pro Thr Tyr Asp Tyr Thr His Cys Leu Cys Asp Ser Ile
          435          440          445
Glu His Ile Thr His Ser Leu Cys Thr Lys Glu Phe Gln Ala Arg Arg
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Ser Ser Tyr Phe Trp Leu Cys Asn Ala Leu Asp Val Tyr Cys Pro Val
465          470          475          480
Gln Trp Glu Tyr Gly Arg Leu Asn Leu His Tyr Ala Val Val Ser Lys
          485          490          495
Arg Lys Ile Leu Gln Leu Val Ala Thr Gly Ala Val Arg Asp Trp Asp
          500          505          510
Asp Pro Arg Leu Phe Thr Leu Thr Ala Leu Arg Arg Arg Gly Phe Pro
          515          520          525
Pro Glu Ala Ile Asn Asn Phe Cys Ala Arg Val Gly Val Thr Val Ala
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Gln Thr Thr Met Glu Pro His Leu Leu Glu Ala Cys Val Arg Asp Val
545          550          555          560
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Val Ile Ile Thr Asn Phe Pro Ala Ala Lys Ser Leu Asp Ile Gln Val
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Pro Asn Phe Pro Ala Asp Glu Thr Lys Gly Phe His Gln Val Pro Phe
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Ala Pro Ile Val Phe Ile Glu Arg Thr Asp Phe Lys Glu Glu Pro Glu
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Pro Gly Phe Lys Arg Leu Ala Trp Gly Gln Pro Val Gly Leu Arg His
625          630          635          640
Thr Gly Tyr Val Ile Glu Leu Gln His Val Val Lys Gly Pro Ser Gly
          645          650          655
Cys Val Glu Ser Leu Glu Val Thr Cys Arg Arg Ala Asp Ala Gly Glu
          660          665          670
Lys Pro Lys Ala Phe Ile His Trp Val Ser Gln Pro Leu Met Cys Glu
          675          680          685
Val Arg Leu Tyr Glu Arg Leu Phe Gln His Lys Asn Pro Glu Asp Pro
          690          695          700
Thr Glu Val Pro Gly Gly Phe Leu Ser Asp Leu Asn Leu Ala Ser Leu
705          710          715          720
His Val Val Asp Ala Ala Leu Val Asp Cys Ser Val Ala Leu Ala Lys
          725          730          735
Pro Phe Asp Lys Phe Gln Phe Glu Arg Leu Gly Tyr Phe Ser Val Asp
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Pro Asp Ser His Gln Gly Lys Leu Val Phe Asn Arg Thr Val Thr Leu

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Lys Glu Asp Pro Gly Lys Val
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760

765

<210> 4113
<211> 1894
<212> DNA
<213> Homo sapiens

<400> 4113
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180
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240
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360
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420
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480
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720
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1320

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<210> 4114

<211> 389

<212> PRT

<213> Homo sapiens

<400> 4114

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Lys	Ala	Leu	Cys	Thr	Ala	His	Glu	Lys	Phe	Cys	Phe	Trp	Pro	Asp
		35					40					45		
Pro	Ser	Pro	Asp	Arg	Phe	Gly	Met	Leu	Pro	Leu	Asp	Glu	Pro	Ala
		50				55					60			
Leu	Val	Ser	Glu	Phe	Leu	Asp	Arg	Phe	Gln	Ser	Leu	Cys	His	Leu
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Leu	Gln	Leu	Pro	Ser	Leu	Arg	Pro	Glu	Asp	Leu	Lys	Thr	Met	Cys
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Thr	Glu	Asp	Lys	Ile	Ser	Leu	Leu	Leu	His	Leu	Leu	Glu	Asp	Glu
			100						105				110	
Asp	His	Arg	Thr	Asp	Glu	Arg	Lys	Thr	Thr	Ile	Lys	Leu	Gly	Ser
		115					120					125		
Ile	Gln	Val	His	Val	Thr	Ala	Cys	Ile	Leu	Ser	Val	Cys	Gly	Trp
		130				135					140			
Cys	Ser	Ser	Ser	Leu	Glu	Ser	Met	Gln	Leu	Ser	Leu	Ile	Ala	Cys
				145			150			155				160
Gln	Cys	Met	Arg	Lys	Val	Gly	Leu	Trp	Gly	Phe	Gln	Gln	Ile	Glu
				165					170					175
Ser	Met	Thr	Asp	Leu	Asp	Ala	Ser	Phe	Gly	Leu	Thr	Ser	Ser	Pro
			180					185					190	
Pro	Gly	Leu	Glu	Gly	Arg	Pro	Glu	Arg	Leu	Pro	Leu	Val	Pro	Glu
		195					200					205		
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210 215 220
 Ser Glu Gln Ala Glu Lys Ser Pro Gly Pro Ile Val Ser Arg Thr Arg
 225 230 235 240
 Ser Trp Asp Ser Ser Ser Pro Val Asp Arg Pro Glu Pro Glu Ala Ala
 245 250 255
 Ser Pro Thr Thr Arg Thr Arg Pro Val Thr Arg Ser Met Gly Thr Gly
 260 265 270
 Asp Thr Pro Gly Leu Glu Val Pro Ser Ser Xaa Ser Ala Glu Ser Gln
 275 280 285
 Ala Ser Ser Leu Cys Ser Ser Ser Ser Ser Asp Thr Ser Ser Arg Ser
 290 295 300
 Phe Phe Asp Pro Thr Ser Gln His Arg Asp Trp Cys Pro Trp Val Asn
 305 310 315 320
 Ile Thr Leu Gly Lys Glu Ser Arg Glu Asn Gly Gly Thr Glu Pro Asp
 325 330 335
 Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu
 340 345 350
 Leu Ala His Lys Gln Ser Ser Gln Pro Ala Glu Thr Asp Ser Met Ser
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 Ser Leu Cys Ser Cys
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<210> 4115

<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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<210> 4116
 <211> 151
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Thr Leu Gly Ser Ser Asn Asn Gln Leu Asn Ser Ser Leu Leu Gln
 50 55 60
 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe
 65 70 75 80
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg
 85 90 95
 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu
 100 105 110
 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn
 115 120 125
 Leu Leu Asn Glu Gln Asn Cys Val Thr His Ser Lys Ala Asn His Ser
 130 135 140
 Leu His Asn Glu Gly Ala Ile
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<210> 4117
 <211> 973
 <212> DNA
 <213> Homo sapiens

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 240

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<210> 4118

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4118

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			20					25					30		
Gly	Cys	Gly	Arg	Trp	Pro	Gln	Pro	Pro	Gly	Gly	Ile	Leu	Glu	Trp	Glu
		35					40					45			
Arg	Cys	Val	Gly	Cys	Pro	Arg	Pro	Ala	Arg	Pro	Ala	Ser	Pro	Ser	Pro
		50				55					60				
Gly	Glu	Ala	Thr	Pro	Pro	Pro	Ser	Ser	Gly	Ile	Ser	Ala	Val	Lys	Pro
65					70					75				80	
Pro	Leu	Arg	Ser	Pro	Arg	Thr	Leu	Pro	Leu	Glu	Leu	Gly	Thr	Gly	Gly
				85					90					95	
Cys	Val	Cys	Ala	Gly	Leu	Gly	Pro	Asn	Thr	Pro	Gly	Cys	Gln	Leu	His
			100					105					110		
Pro	Pro	Ala	Val	Leu	Cys	Pro	Gln	Gly	Leu	Gly	Arg	His	Gln	Arg	Leu
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<210> 4119

<211> 649

<212> DNA

<213> Homo sapiens

<400> 4119
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 649

<210> 4120
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4120
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 Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr
 35 40 45
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu
 50 55 60
 Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala
 65 70 75 80
 Trp Leu Arg Ala Ala Ser Val Ala Val Gly Ser Pro Leu Val Thr Ala
 85 90 95
 His Ser Leu His
 100

<210> 4121
 <211> 2490
 <212> DNA
 <213> Homo sapiens

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<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

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Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
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<210> 4123

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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<213> Homo sapiens

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			20					25					30		
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		35				40						45			
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<211> 820

<212> PRT

<213> Homo sapiens

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<210> 4128

<211> 445

<212> PRT

<213> Homo sapiens

<400> 4128

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		20						25				30			
Arg	Tyr	Asp	Ile	Val	Phe	Leu	Pro	Pro	Ser	Phe	Pro	Ile	Val	Ala	Met
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 130 135 140
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 Thr Glu Pro Ala Ser Glu Pro Ser Thr Glu Leu Gly Lys Ala Glu Ala
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<211> 1749

<212> DNA

<213> Homo sapiens

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<211> 523

<212> PRT

<213> Homo sapiens

<400> 4130

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Val	Val	Asp	Gln	Gly	Ala	Gly	Ala	Ser	Arg	Gly	Gly	Asn	Thr	Arg	Lys
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			85					90					95		
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Glu	Val	Ala	Gln	Met	Leu	Lys	Ser	Lys	His	Gly	Gly	Asn	Tyr	Leu	Leu
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Phe	Asn	Leu	Ser	Glu	Arg	Arg	Pro	Asp	Ile	Thr	Lys	Leu	His	Ala	Lys
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Val	Leu	Glu	Phe	Gly	Trp	Pro	Asp	Leu	His	Thr	Pro	Ala	Leu	Glu	Lys
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His	Asn	Val	Val	Val	Leu	His	Asn	Lys	Gly	Asn	Arg	Gly	Arg	Ile	Gly
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          355          360          365
Gly Lys Val Glu Phe Val Phe Ser Tyr Gly Pro Glu Lys Ile Gln Gly
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Met Glu His Leu Glu Asn Gly Pro Ser Val Ser Val Asp Tyr Asn Thr
385          390          395          400
Ser Asp Pro Leu Ile Arg Trp Asp Ser Tyr Asp Asn Phe Ser Gly His
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Arg Asp Asp Gly Met Glu Glu Val Val Gly His Thr Gln Gly Pro Leu
          420          425          430
Asp Gly Ser Leu Tyr Ala Lys Val Lys Lys Lys Asp Ser Leu His Gly
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Ser Thr Gly Ala Val Asn Ala Thr Arg Pro Thr Leu Ser Ala Thr Pro
          450          455          460
Asn His Val Glu His Thr Leu Ser Val Ser Ser Asp Ser Gly Asn Ser
465          470          475          480
Thr Ala Ser Thr Lys Thr Asp Lys Thr Asp Glu Pro Val Pro Gly Ala
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<210> 4131

<211> 608

<212> DNA

<213> Homo sapiens

<400> 4131

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<210> 4132
<211> 194
<212> PRT
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Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
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Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
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<213> Homo sapiens

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<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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 Thr Ser Gly Ala Gly Pro Lys Ser Trp Gln Val Pro Pro Pro Ala Pro
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 Glu Val Gln Ile Arg Thr Pro Arg Val Asn Cys Pro Glu Lys Val Ile
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<211> 388

<212> DNA

<213> Homo sapiens

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 Asp Ala Leu Ser Asp Thr Glu Val Ala Ala Ala Val Gly Asn Ser Met
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 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 4138

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			20				25					30			
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Val	Ser	Leu	Gly	His	Leu	Glu	Ser	Ala	Arg	Val	Leu	Leu	Arg	His	Lys
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Ala	Asp	Val	Thr	Lys	Glu	Asn	Arg	Gln	Gly	Trp	Thr	Val	Leu	His	Glu
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Leu	Gln	Lys	Ile	Leu	Glu	Ala	Pro	Asp	Phe	Tyr	Val	Gln	Met	Lys	Trp
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Glu	Phe	Thr	Ser	Trp	Val	Pro	Leu	Val	Ser	Arg	Ile	Cys	Pro	Asn	Asp
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Ile	Ala	Phe	Glu	Arg	Thr	Lys	Ser	Gly	Phe	Trp	Gly	Trp	Arg	Thr	Asp
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Lys	Ala	Glu	Val	Val	Asn	Gly	Tyr	Glu	Ala	Lys	Val	Tyr	Thr	Val	Asn
		260				265						270			
Asn	Val	Asn	Val	Ile	Thr	Lys	Ile	Arg	Thr	Glu	His	Leu	Thr	Glu	Glu
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Glu	Lys	Lys	Arg	Tyr	Lys	Ala	Asp	Arg	Asn	Pro	Leu	Glu	Ser	Leu	Leu
	290				295					300					
Gly	Thr	Val	Glu	His	Gln	Phe	Gly	Ala	Gln	Gly	Asp	Leu	Thr	Thr	Glu
305				310						315				320	
Cys	Ala	Thr	Ala	Asn	Asn	Pro	Thr	Ala	Ile	Thr	Pro	Asp	Glu	Tyr	Phe
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 <211> 431
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

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<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

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			20					25					30		
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
		35					40					45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
	50					55					60				
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
65				70						75				80	
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
			85						90					95	
Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

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 130 135 140
 Arg Gln Leu Gln Glu Gln Gln Arg Gln Lys Glu Leu Glu Arg Glu Arg
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<211> 1773

<212> DNA

<213> Homo sapiens

<400> 4143

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10/03, 64
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<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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			20					25						30	
Gly	Asp	Glu	Glu	Glu	Phe	Phe	Glu	Ile	Arg	Thr	Glu	Trp	Ser	Asp	Arg
		35					40					45			
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      85              90              95
Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Leu Lys Thr Ile Ile Ser
      100              105              110
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
      115              120              125
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile
      130              135              140
Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser
145              150              155              160
Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser
      165              170              175
Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His
      180              185              190
Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp
      195              200              205
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<213> Homo sapiens

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<213> Homo sapiens

<400> 4146

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<210> 4148

<211> 697

<212> PRT

<213> Homo sapiens

<400> 4148

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			20					25					30		
Val	Ser	Ala	Thr	Gly	Glu	Leu	Leu	Glu	Arg	Thr	Ile	Arg	Ser	Ala	Val
		35				40					45				
Glu	Gln	His	Leu	Phe	Asp	Val	Asn	Asn	Ser	Gly	Gly	Gln	Ser	Ser	Glu
	50					55				60					
Asp	Ser	Glu	Ser	Gly	Thr	Leu	Ser	Ala	Ser	Ser	Ala	Thr	Ser	Ala	Arg
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Gln	Arg	Arg	Arg	Gln	Ser	Lys	Glu	Gln	Asp	Glu	Val	Arg	His	Gly	Arg
			85					90					95		
Asp	Lys	Gly	Leu	Ile	Asn	Lys	Glu	Asn	Thr	Pro	Ser	Gly	Phe	Asn	His
		100					105						110		
Leu	Asp	Asp	Cys	Ile	Leu	Asn	Thr	Gln	Glu	Val	Glu	Lys	Val	His	Lys
	115					120					125				
Asn	Thr	Phe	Gly	Cys	Ala	Gly	Glu	Arg	Ser	Lys	Pro	Lys	Arg	Gln	Lys
	130				135						140				
Ser	Ser	Thr	Lys	Leu	Ser	Glu	Leu	His	Asp	Asn	Gln	Asp	Gly	Leu	Val
145				150					155					160	
Asn	Met	Glu	Ser	Leu	Asn	Ser	Thr	Arg	Ser	His	Glu	Arg	Thr	Gly	Pro
			165				170						175		
Asp	Asp	Phe	Glu	Trp	Met	Ser	Asp	Glu	Arg	Lys	Gly	Asn	Glu	Lys	Asp

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 Gly Gly His Thr Gln His Phe Glu Ser Pro Thr Met Lys Ile Gln Glu
 195 200 205
 His Pro Ser Leu Ser Asp Thr Lys Gln Gln Arg Asn Gln Asp Ala Gly
 210 215 220
 Asp Gln Glu Glu Ser Phe Val Ser Glu Val Pro Gln Ser Asp Leu Thr
 225 230 235 240
 Ala Leu Cys Asp Glu Lys Asn Trp Glu Glu Pro Ile Pro Ala Phe Ser
 245 250 255
 Ser Trp Gln Arg Glu Asn Ser Asp Ser Asp Glu Ala His Leu Ser Pro
 260 265 270
 Gln Ala Gly Arg Leu Ile Arg Gln Leu Leu Asp Glu Asp Ser Asp Pro
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 325 330 335
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 Glu Leu Val Asp Lys Ala Ile Lys Pro Ser Val Glu Ala Thr Leu Glu
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 Ser Ile Gln Arg Lys Leu Gln Glu Lys Arg Ala Glu Ser Ser Arg Pro
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 Glu Asp Ile Lys Asp Met Thr Lys Asp Gln Ile Ala Asn Glu Lys Val
 465 470 475 480
 Ala Leu Gln Lys Ala Leu Leu Tyr Tyr Glu Ser Ile His Gly Arg Pro
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 Val Thr Lys Asn Glu Arg Gln Val Met Lys Pro Leu Tyr Asp Arg Tyr
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 Arg Leu Val Lys Gln Ile Leu Ser Arg Ala Asn Thr Ile Pro Ile Ile
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 Gly Ser Pro Ser Ser Lys Arg Arg Ser Pro Leu Leu Gln Pro Ile Ile
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 Glu Gly Glu Thr Ala Ser Phe Phe Lys Glu Ile Lys Glu Glu Glu Glu
 545 550 555 560
 Gly Ser Glu Asp Asp Ser Asn Val Lys Pro Asp Phe Met Val Thr Leu
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 580 585 590
 Ala Asp Gly Phe Ile Ser Pro Met Asp Asp Lys Ile Pro Ser Lys Cys
 595 600 605
 Ser Gln Asp Thr Gly Leu Ser Asn Leu His Ala Ala Ser Ile Pro Glu

610	615	620
Leu Leu Glu His Leu Gln Glu Met Arg Glu Glu Lys Lys Arg Ile Arg		
625	630	635
Lys Lys Leu Arg Asp Phe Glu Asp Asn Phe Phe Arg Gln Asn Gly Arg		640
	645	650
Asn Val Gln Lys Glu Asp Arg Thr Pro Met Ala Glu Glu Tyr Ser Glu		655
	660	665
Tyr Lys His Ile Lys Ala Lys Leu Arg Leu Leu Glu Val Leu Ile Ser		670
	675	680
Lys Arg Asp Thr Asp Ser Lys Ser Met		685
690	695	

<210> 4149

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4149

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 180
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<210> 4150

<211> 193

<212> PRT

<213> Homo sapiens

<400> 4150

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			20					25					30		
His	Ile	Lys	Arg	Ile	Thr	Asp	Asn	Asp	Ile	Gln	Ser	Leu	Val	Leu	Glu
		35				40					45				
Ile	Glu	Gly	Thr	Asn	Val	Ser	Thr	Thr	Tyr	Ile	Thr	Cys	Pro	Ala	Asp
	50					55					60				
Pro	Lys	Lys	Thr	Leu	Gly	Ile	Lys	Leu	Pro	Phe	Leu	Val	Met	Ile	Ile
65					70					75				80	
Lys	Asn	Leu	Lys	Lys	Tyr	Phe	Thr	Phe	Glu	Val	Gln	Val	Leu	Asp	Asp
			85						90					95	
Lys	Asn	Val	Arg	Arg	Arg	Phe	Arg	Ala	Ser	Asn	Tyr	Gln	Ser	Thr	Thr
		100						105					110		
Arg	Val	Lys	Pro	Phe	Ile	Cys	Thr	Met	Pro	Met	Arg	Leu	Asp	Asp	Gly
		115					120					125			
Trp	Asn	Gln	Ile	Gln	Phe	Asn	Leu	Leu	Asp	Phe	Thr	Arg	Arg	Ala	Tyr
	130					135					140				
Gly	Thr	Asn	Tyr	Ile	Glu	Thr	Leu	Arg	Val	Gln	Ile	His	Ala	Asn	Cys
145					150					155				160	
Arg	Ile	Arg	Arg	Val	Tyr	Phe	Ser	Asp	Arg	Leu	Tyr	Ser	Glu	Asp	Glu
			165					170					175		
Leu	Pro	Ala	Glu	Phe	Lys	Leu	Tyr	Leu	Pro	Val	Gln	Asn	Lys	Ala	Lys
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Gln

<210> 4151

<211> 1372

<212> DNA

<213> Homo sapiens

<400> 4151

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<210> 4152

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

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      35                40                45
Ser Glu Pro Ala Ser Val Ala Pro Asn Gln Asn Leu Leu Cys Ala Pro
      50                55                60
Arg Pro Pro Ser Thr Phe Met Ser Val Leu Leu Leu Arg Gly Gln Val
65                70                75                80
Leu Pro Ser Leu Thr Ala Leu Ala Arg Pro Ala Arg Phe Pro Ser Asn
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Pro

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<210> 4153
 <211> 395
 <212> DNA
 <213> Homo sapiens

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<210> 4154
 <211> 110
 <212> PRT
 <213> Homo sapiens

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<400> 4154
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Thr Thr Asn Gln Asn Gly Arg Glu Asn Asn Glu Arg Leu Ser Thr Ser
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Asn Gly Lys Met Ser Pro Thr Arg Phe His Ala Asn Ser Met Gly Gln
      35                40                45
Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
      50                55                60
Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
65                70                75                80
Ile Lys Ala Phe Leu Ala Asn Arg Arg Ile Ser Gln Ala Val Asp Thr
      85                90                95
Ile Gly Lys Met Leu Phe Pro Ser Val His Ser Gly Leu Ile
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<210> 4155
<211> 1191
<212> DNA
<213> Homo sapiens

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240
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300
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360
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420
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480
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720
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1191

<210> 4156
<211> 233
<212> PRT
<213> Homo sapiens

<400> 4156
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      20           25           30
Asn Val Lys Asp Leu Arg Pro Arg Ala Arg Thr Ile Leu Lys Trp Asn
      35           40           45
Glu Leu Asn Val Gly Asp Val Val Met Val Asn Tyr Asn Val Glu Ser
      50           55           60
Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys
      65           70           75           80
Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly
      85           90           95
Gly Ser Glu Gly Thr Leu Asn Asp Cys Lys Ile Ile Ser Val Asp Glu
      100          105          110
Ile Phe Lys Ile Glu Arg Pro Gly Ala His Pro Leu Ser Phe Ala Asp
      115          120          125
Gly Lys Phe Leu Arg Arg Asn Asp Pro Glu Cys Asp Leu Cys Gly Gly
      130          135          140
Asp Pro Glu Lys Lys Cys His Ser Cys Ser Cys Arg Val Cys Gly Gly
      145          150          155          160
Lys His Glu Pro Asn Met Gln Leu Leu Cys Asp Glu Cys Asn Val Ala
      165          170          175
Tyr His Ile Tyr Cys Leu Asn Pro Pro Leu Asp Lys Val Pro Glu Glu
      180          185          190
Glu Tyr Trp Tyr Cys Pro Ser Cys Lys Thr Asp Ser Ser Glu Val Val
      195          200          205
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<210> 4157

<211> 3460

<212> DNA

<213> Homo sapiens

<400> 4157

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540

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<210> 4158

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4158

Met	Pro	Leu	Thr	Leu	Gln	Asp	Trp	Cys	Arg	Gly	Glu	His	Leu	Asn	
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Thr	Arg	Arg	Cys	Met	Leu	Ile	Leu	Gly	Ile	Pro	Glu	Asp	Cys	Gly	Glu

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      20      25      30
Asp Glu Phe Glu Glu Thr Leu Gln Glu Ala Cys Arg His Leu Gly Arg
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Ile Leu Leu Glu Leu Ala Gln Asp Ile Asp Tyr Ala Leu Leu Pro Arg
      65      70      75      80
Glu Ile Pro Gly Lys Gly Gly Pro Trp Glu Val Ile Val Lys Pro Arg
      85      90      95
Asn Ser Asp Gly Glu Phe Leu Asn Arg Leu Asn Arg Phe Leu Glu Glu
      100      105      110
Glu Arg Arg Thr Val Ser Asp Met Asn Arg Val Leu Gly Ser Asp Thr
      115      120      125
Asn Cys Ser Ala Pro Arg Val Thr Ile Ser Pro Glu Phe Trp Thr Trp
      130      135      140
Ala Gln Thr Leu Gly Ala Ala Val Gln Pro Leu Leu Glu Gln Met Leu
      145      150      155      160
Tyr Arg Glu Leu Arg Val Phe Ser Gly Asn Thr Ile Ser Ile Pro Gly
      165      170      175
Ala Leu Ala Phe Asp Ala Trp Leu Glu His Thr Thr Glu Met Leu Gln
      180      185      190
Met Trp Gln Val Pro Glu Gly Glu Lys Arg Arg Arg Leu Met Glu Cys
      195      200      205
Leu Arg Gly Pro Ala Leu Gln Val Val Ser Gly Leu Arg Ala Ser Asn
      210      215      220
Ala Ser Ile Thr Val Glu Glu Cys Leu Ala Ala Leu Gln Gln Val Phe
      225      230      235      240
Gly Pro Val Glu Ser His Lys Ile Ala Gln Val Lys Leu Cys Lys Ala
      245      250      255
Tyr Gln Glu Ala Gly Glu Lys Val Ser Ser Phe Val Leu Arg Leu Glu
      260      265      270
Pro Leu Leu Gln Arg Ala Val Glu Asn Asn Val Val Ser Arg Arg Asn
      275      280      285
Val Asn Gln Thr Arg Leu Lys Arg Val Leu Ser Gly Ala Thr Leu Pro
      290      295      300
Asp Lys Leu Arg Asp Lys Leu Lys Leu Met Lys Gln Arg Arg Lys Pro
      305      310      315      320
Pro Gly Phe Leu Ala Leu Val Lys Leu Leu Arg Glu Glu Glu Glu Trp
      325      330      335
Glu Ala Thr Leu Gly Pro Asp Arg Glu Ser Leu Glu Gly Leu Glu Val
      340      345      350
Ala Pro Arg Pro Pro Ala Arg Ile Thr Gly Val Gly Ala Val Pro Leu
      355      360      365
Pro Ala Ser Gly Asn Ser Phe Asp Ala Arg Pro Ser Gln Gly Tyr Arg
      370      375      380
Arg Arg Arg Gly Arg Gly Gln His Arg Arg Gly Gly Val Ala Arg Ala
      385      390      395      400
Gly Ser Arg Gly Ser Arg Lys Arg Lys Arg His Thr Phe Cys Tyr Ser
      405      410      415
Cys Gly Glu Asp Gly His Ile Arg Val Gln Cys Ile Asn Pro Ser Asn
      420      425      430
Leu Leu Leu Val Lys Gln Lys Lys Gln Ala Ala Val Glu Ser Gly Asn
      435      440      445
Gly Asn Trp Ala Trp Asp Lys Ser His Pro Lys Ser Lys Ala Lys

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450 455 460

<210> 4159
<211> 1491
<212> DNA
<213> Homo sapiens

<400> 4159
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<210> 4160

<211> 360

<212> PRT

<213> Homo sapiens

<400> 4160

Phe	His	Leu	Ala	Leu	Phe	Ser	Ser	Gly	Gln	Leu	Thr	Ala	Phe	Asp	Arg
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			20					25					30		
Pro	Trp	Val	Asn	Asp	Gln	Asp	Val	Pro	Phe	Cys	Pro	Asp	Cys	Gly	Asn
		35					40					45			
Lys	Phe	Ser	Ile	Arg	Asn	Arg	Arg	His	His	Cys	Arg	Leu	Cys	Gly	Ser
	50					55				60					
Ile	Met	Cys	Lys	Lys	Cys	Met	Glu	Leu	Ile	Ser	Leu	Pro	Leu	Ala	Asn
65					70					75					80
Lys	Leu	Thr	Ser	Ala	Ser	Lys	Glu	Ser	Leu	Ser	Thr	His	Thr	Ser	Pro
				85					90					95	
Ser	Gln	Ser	Pro	Asn	Ser	Val	His	Gly	Ser	Arg	Arg	Gly	Ser	Ile	Ser
			100					105					110		
Ser	Met	Ser	Ser	Val	Ser	Ser	Val	Leu	Asp	Glu	Lys	Asp	Asp	Asp	Arg
		115					120					125			
Ile	Arg	Cys	Cys	Thr	His	Cys	Lys	Asp	Thr	Leu	Leu	Lys	Arg	Glu	Gln
	130					135					140				
Gln	Ile	Asp	Glu	Lys	Glu	His	Thr	Pro	Asp	Ile	Val	Lys	Leu	Tyr	Glu
145					150					155					160
Lys	Leu	Arg	Leu	Cys	Met	Glu	Lys	Val	Asp	Gln	Lys	Ala	Pro	Glu	Tyr
			165						170					175	
Ile	Arg	Met	Ala	Ala	Ser	Leu	Asn	Ala	Gly	Glu	Thr	Thr	Tyr	Ser	Leu
		180						185					190		
Glu	His	Ala	Ser	Asp	Leu	Arg	Val	Glu	Val	Gln	Lys	Val	Tyr	Glu	Leu
		195					200					205			
Ile	Asp	Ala	Leu	Ser	Lys	Lys	Ile	Leu	Thr	Leu	Gly	Leu	Asn	Gln	Asp
	210					215					220				
Pro	Pro	Pro	His	Pro	Ser	Asn	Leu	Arg	Leu	Gln	Arg	Met	Ile	Arg	Tyr
225					230					235				240	
Ser	Ala	Thr	Leu	Phe	Val	Gln	Glu	Lys	Leu	Leu	Gly	Leu	Met	Ser	Leu
			245						250				255		
Pro	Thr	Lys	Glu	Gln	Phe	Glu	Glu	Leu	Lys	Lys	Lys	Arg	Lys	Glu	Glu
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Met	Glu	Arg	Lys	Arg	Ala	Val	Glu	Arg	Gln	Ala	Ala	Leu	Glu	Ser	Gln
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Arg	Arg	Leu	Glu	Glu	Arg	Gln	Ser	Gly	Leu	Ala	Ser	Arg	Ala	Ala	Asn
	290					295					300				
Gly	Glu	Val	Ala	Ser	Leu	Arg	Arg	Gly	Pro	Ala	Pro	Leu	Lys	Lys	Ala
305					310					315					320
Glu	Gly	Trp	Leu	Pro	Leu	Ser	Gly	Gly	Gln	Gly	Gln	Ser	Glu	Asp	Ser
			325						330				335		
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<210> 4161
 <211> 3316
 <212> DNA
 <213> Homo sapiens

<400> 4161
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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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Leu	Leu	Leu	Leu	Phe	Leu	Ala	Gly	Val	Tyr	Gly	Asn	Gly	Ala	Leu	Ala
		20					25					30			
Glu	His	Ser	Glu	Asn	Val	His	Ile	Ser	Gly	Val	Ser	Thr	Ala	Cys	Gly
		35				40					45				
Glu	Thr	Pro	Glu	Gln	Ile	Arg	Ala	Pro	Ser	Gly	Ile	Ile	Thr	Ser	Pro
	50				55						60				
Gly	Trp	Pro	Ser	Glu	Tyr	Pro	Ala	Lys	Ile	Asn	Cys	Ser	Trp	Phe	Ile
65				70				75						80	
Arg	Ala	Asn	Pro	Gly	Glu	Ile	Ile	Thr	Ile	Ser	Phe	Gln	Asp	Phe	Asp
		85						90					95		
Ile	Gln	Gly	Ser	Arg	Arg	Cys	Asn	Leu	Asp	Trp	Leu	Thr	Ile	Glu	Thr
		100					105					110			
Tyr	Lys	Asn	Ile	Glu	Ser	Tyr	Arg	Ala	Cys	Gly	Ser	Thr	Ile	Pro	Pro
		115					120					125			
Pro	Tyr	Ile	Ser	Ser	Gln	Asp	His	Ile	Trp	Ile	Arg	Phe	His	Ser	Asp
	130					135					140				
Asp	Asn	Ile	Ser	Arg	Lys	Gly	Phe	Arg	Leu	Ala	Tyr	Phe	Ser	Gly	Lys
145				150					155					160	
Ser	Glu	Glu	Pro	Asn	Cys	Ala	Cys	Asp	Gln	Phe	Arg	Cys	Gly	Asn	Gly
		165						170					175		
Lys	Cys	Ile	Pro	Glu	Ala	Trp	Lys	Cys	Asn	Asn	Met	Asp	Glu	Cys	Gly
		180						185					190		
Asp	Ser	Ser	Asp	Glu	Glu	Ile	Cys	Ala	Lys	Glu	Ala	Asn	Pro	Pro	Thr
		195					200					205			
Ala	Ala	Ala	Phe	Gln	Pro	Cys	Ala	Tyr	Asn	Gln	Phe	Gln	Cys	Leu	Ser
		210				215					220				
Arg	Phe	Thr	Lys	Val	Tyr	Thr	Cys	Leu	Pro	Glu	Ser	Leu	Lys	Cys	Asp
225				230						235				240	
Gly	Asn	Ile	Asp	Cys	Leu	Asp	Leu	Gly	Asp	Glu	Ile	Asp	Cys	Asp	Val
			245					250					255		
Pro	Thr	Cys	Gly	Gln	Trp	Leu	Lys	Tyr	Phe	Tyr	Gly	Thr	Phe	Asn	Ser

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Pro Asn Tyr Pro Asp Phe Tyr Pro Pro Gly Ser Asn Cys Thr Trp Leu
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Ile Asp Thr Gly Asp His Arg Lys Val Ile Leu Arg Phe Thr Asp Phe
      290                295                300
Lys Leu Asp Gly Thr Gly Tyr Gly Asp Tyr Val Lys Ile Tyr Asp Gly
305                310                315                320
Leu Glu Glu Asn Pro His Lys Leu Leu Arg Val Leu Thr Ala Phe Asp
      325                330                335
Ser His Ala Pro Leu Thr Val Val Ser Ser Ser Gly Gln Ile Arg Val
      340                345                350
His Phe Cys Ala Asp Lys Val Asn Ala Ala Arg Gly Phe Asn Ala Thr
      355                360                365
Tyr Gln Val Asp Gly Phe Cys Leu Pro Trp Glu Ile Pro Cys Gly Gly
      370                375                380
Asn Trp Gly Cys Tyr Thr Glu Gln Gln Arg Cys Asp Gly Tyr Trp His
385                390                395                400
Cys Pro Asn Gly Arg Asp Glu Thr Asn Cys Thr Met Cys Gln Lys Glu
      405                410                415
Glu Phe Pro Cys Ser Arg Asn Gly Val Cys Tyr Pro Arg Ser Asp Arg
      420                425                430
Cys Asn Tyr Gln Asn His Cys Pro Asn Gly Ser Asp Glu Lys Asn Cys
      435                440                445
Phe Phe Cys Gln Pro Gly Asn Phe His Cys Lys Asn Asn Arg Cys Val
      450                455                460
Phe Glu Ser Trp Val Cys Asp Ser Gln Asp Asp Cys Gly Asp Gly Ser
465                470                475                480
Asp Glu Glu Asn Cys Pro Val Ile Val Pro Thr Arg Val Ile Thr Ala
      485                490                495
Ala Val Ile Gly Ser Leu Ile Cys Gly Leu Leu Leu Val Ile Ala Leu
      500                505                510
Gly Cys Thr Cys Lys Leu Tyr Ser Leu Arg Met Phe Glu Arg Arg Ser
      515                520                525
Phe Glu Thr Gln Leu Ser Arg Val Glu Ala Glu Leu Leu Arg Arg Glu
      530                535                540
Ala Pro Pro Ser Tyr Gly Gln Leu Ile Ala Gln Gly Leu Ile Pro Pro
545                550                555                560
Val Glu Asp Phe Pro Val Cys Ser Pro Asn Gln Ala Ser Val Leu Glu
      565                570                575
Asn Leu Arg Leu Ala Val Arg Ser Gln Leu Gly Phe Thr Ser Val Arg
      580                585                590
Leu Pro Met Ala Gly Arg Ser Ser Asn Ile Trp Asn Arg Ile Phe Asn
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Phe Ala Arg Ser Arg His Ser Gly Ser Leu Ala Leu Val Ser Ala Asp
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625                630                635                640
Asn His Thr His Arg Ser Leu Phe Ser Val Glu Ser Asp Asp Thr Asp
      645                650                655
Thr Glu Asn Glu Arg Arg Asp Met Ala Gly Ala Ser Gly Gly Val Ala
      660                665                670
Ala Pro Leu Pro Gln Lys Val Pro Pro Thr Thr Ala Val Glu Ala Thr
      675                680                685
Val Gly Ala Cys Ala Ser Ser Ser Thr Gln Ser Thr Arg Gly Gly His

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705                710                715                720
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Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln
        740                745                750
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu
        755                760                765
Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser
        770                775                780
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser
785                790                795                800
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly
        805                810                815
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val
        820                825                830
His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn
        835                840                845
Glu Thr Ser Asp Asp Glu Ala Leu Leu Leu Cys
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<210> 4163
 <211> 568
 <212> DNA
 <213> Homo sapiens

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<400> 4163
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180
gtgttgcccc agtggctctg ggggatgaag gggatcccgg tcccatctgg acaccctcaa
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360
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420
ttggcttgcc ccaagtggca ggccttgccg agggcgagaa tggcgctgt tgttcagggc
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540
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<210> 4164
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 4164

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Arg Pro Thr Pro Gly Leu Pro Gly Gln Ser Gly His Gly Ser Leu Gln
      20           25           30
Cys Gly Leu Gln Asp Pro Ala Gly Ser Arg Pro Leu Ser Pro Pro Phe
      35           40           45
Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu
      50           55           60
Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
65           70           75           80
Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu
      85           90           95
Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
      100          105          110
Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
      115          120          125
Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
      130          135          140
Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
145          150          155          160
Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro
      165          170          175
Trp Thr Cys Arg His Met Ala Ile Glu Leu Gln
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<210> 4165

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4165

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ctgctggact ggcgcaggcg taccctggag agggaggggc cccgtgcctt ctaccgaggc
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gtgctcctgg cctgcggtac catatccagc acctgcggcc agatagccag ttaccgctg
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420
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540
caatagccat gtaactgagc ttggaagagg atcttgctgt cctggccaac atctcactgc
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<210> 4166

<211> 166

<212> PRT

<213> Homo sapiens

<400> 4166

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Gln	Thr	Ile	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Leu	Thr	Leu
		20						25					30		
Arg	Arg	Thr	Gly	Gln	Tyr	Lys	Gly	Leu	Leu	Asp	Cys	Ala	Arg	Arg	Ile
		35					40					45			
Leu	Glu	Arg	Glu	Gly	Pro	Arg	Ala	Phe	Tyr	Arg	Gly	Tyr	Leu	Pro	Asn
	50					55					60				
Val	Leu	Gly	Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu
65					70					75				80	
Thr	Leu	Lys	Asn	Trp	Trp	Leu	Gln	Gln	Tyr	Ser	His	Asp	Ser	Ala	Asp
			85						90					95	
Pro	Gly	Ile	Leu	Val	Leu	Leu	Ala	Cys	Gly	Thr	Ile	Ser	Ser	Thr	Cys
			100					105					110		
Gly	Gln	Ile	Ala	Ser	Tyr	Pro	Leu	Ala	Leu	Val	Arg	Thr	Arg	Met	Gln
		115					120					125			
Ala	Gln	Gly	Phe	His	His	Val	Ala	Gln	Ala	His	Leu	Glu	Leu	Val	Gly
		130				135					140				
Ser	Arg	Asn	Ser	Pro	Ala	Phe	Ser	Leu	Pro	Thr	Cys	Trp	Asp	Tyr	Arg
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Lys	Pro	Val	Val	Met	Pro										
					165										

<210> 4167

<211> 897

<212> DNA

<213> Homo sapiens

<400> 4167

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120
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180
ctgagtagct tggactacag atatggccgc gtggaaagtg tcaaaattct tccaagagg
240
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300
gctcacaact cgggtcaacaa aatgggtgac agagacctac gcacggatta taatgaacca
360
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420
agagaggttt ctgggttcag aggaggtggt ggagggcctg cttatggtcc cccaccgtca
480

cttcatgcac gagaaggacg ttatgagcgg agacttgatg gggcttcaga taacagggag
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 660
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 720
 gaacctaggg ctgcgagca gtttacactg cccagtgtgg tacacagga tatctacagg
 780
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 840
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 897

<210> 4168

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4168

Xaa	Arg	His	Ala	Ala	Gln	His	Gly	Pro	Gly	Asn	Gln	Ala	Ser	Leu	Gly
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Gly	Gln	Phe	Thr	Arg	Glu	Arg	Ala	Gly	Arg	Glu	Asp	His	Arg	Ala	Phe
			20					25					30		
Gln	Thr	Ala	Gly	Val	Gln	Trp	Arg	Asp	Leu	Ser	Pro	Pro	Gln	Leu	Pro
		35					40				45				
Pro	Pro	Gly	Ile	Lys	Gln	Ser	Ser	Cys	Phe	Ser	Leu	Leu	Ser	Ser	Leu
	50				55					60					
Asp	Tyr	Arg	Tyr	Gly	Arg	Val	Glu	Ser	Val	Lys	Ile	Leu	Pro	Lys	Arg
65					70					75				80	
Gly	Ser	Glu	Gly	Gly	Val	Ala	Ala	Phe	Val	Asp	Phe	Val	Asp	Ile	Lys
			85					90						95	
Ser	Ala	Gln	Lys	Ala	His	Asn	Ser	Val	Asn	Lys	Met	Gly	Asp	Arg	Asp
		100						105					110		
Leu	Arg	Thr	Asp	Tyr	Asn	Glu	Pro	Gly	Thr	Ile	Pro	Ser	Ala	Ala	Arg
		115						120					125		
Gly	Leu	Asp	Asp	Thr	Val	Ser	Ile	Ala	Ser	Arg	Ser	Arg	Glu	Val	Ser
		130				135					140				
Gly	Phe	Arg	Gly	Gly	Gly	Gly	Gly	Pro	Ala	Tyr	Gly	Pro	Pro	Pro	Ser
145					150					155				160	
Leu	His	Ala	Arg	Glu	Gly	Arg	Tyr	Glu	Arg	Arg	Leu	Asp	Gly	Ala	Ser
			165					170						175	
Asp	Asn	Arg	Glu	Arg	Ala	Tyr	Glu	His	Ser	Ala	Tyr	Gly	His	His	Glu
		180						185					190		
Arg	Gly	Thr	Gly	Gly	Phe	Asp	Arg	Thr	Arg	His	Tyr	Asp	Gln	Asp	Tyr
		195					200					205			
Tyr	Arg	Asp	Pro	Arg	Glu	Arg	Thr	Leu	Gln	His	Gly	Leu	Tyr	Tyr	Ala
		210				215					220				
Ser	Arg	Ser	Arg	Ser	Pro	Asn	Arg	Phe	Asp	Ala	His	Asp	Pro	Arg	Tyr
225					230					235				240	
Glu	Pro	Arg	Ala	Arg	Glu	Gln	Phe	Thr	Leu	Pro	Ser	Val	Val	His	Arg
			245					250						255	
Asp	Ile	Tyr	Arg	Asp	Asp	Ile	Thr	Arg	Glu	Val	Arg	Gly	Arg	Arg	Pro

	260		265		270											
Glu	Arg	Asn	Tyr	Gln	His	Ser	Arg	Ser	Arg	Ser	Pro	His	Ser	Ser	Gln	
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Ser	Arg	Asn	Gln	Ser	Pro	Gln	Arg	Leu	Ala	Ser						
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<210> 4169

<211> 4743

<212> DNA

<213> Homo sapiens

<400> 4169

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1260

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<211> 900

<212> PRT

<213> Homo sapiens

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			20					25					30		
Ala	His	Leu	Arg	Ser	His	Gly	Leu	Glu	Pro	Ala	Ala	Pro	Ser	Pro	Arg
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Leu	Gly	Ala	Leu	Glu	Pro	Leu	Pro	Pro	Ala	Pro	Gly	Asp	Thr	Gly	Val
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Gly	Pro	Pro	Asn	Ser	Glu	Gly	Lys	Asp	Pro	Ala	Gly	Ala	Tyr	Arg	Ser
			85					90						95	
Pro	Ser	Pro	Gln	Gly	Thr	Lys	Ala	Pro	Arg	Phe	Val	Pro	Leu	Thr	Ser
			100					105					110		
Ile	Cys	Phe	Pro	Asp	Ser	Leu	Leu	Gln	Asp	Glu	Glu	Arg	Ser	Phe	Phe
		115					120					125			
Pro	Thr	Met	Glu	Glu	Met	Phe	Gly	Gly	Gly	Ala	Ala	Asp	Asp	Tyr	Gly
		130				135					140				
Lys	Ala	Gly	Pro	Pro	Glu	Asp	Glu	Gly	Asp	Pro	Lys	Ala	Gly	Ala	Gly
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Pro	Pro	Pro	Gly	Pro	Pro	Ala	Tyr	Asp	Pro	Tyr	Gly	Pro	Tyr	Cys	Pro
			165					170						175	
Gly	Arg	Ala	Ser	Gly	Ala	Gly	Pro	Glu	Thr	Pro	Gly	Leu	Gly	Leu	Asp
		180						185				190			
Pro	Asn	Lys	Pro	Pro	Glu	Leu	Pro	Ser	Thr	Val	Asn	Ala	Glu	Pro	Leu
		195				200						205			
Gly	Leu	Ile	Gln	Ser	Gly	Pro	His	Gln	Ala	Ala	Pro	Pro	Pro	Pro	Pro
		210				215					220				
Pro	Pro	Pro	Pro	Pro	Pro	Ala	Pro	Ala	Ser	Glu	Pro	Lys	Gly	Gly	Leu
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Thr	Ser	Pro	Ile	Phe	Cys	Ser	Thr	Lys	Pro	Lys	Lys	Leu	Leu	Lys	Thr
			245					250						255	
Ser	Ser	Phe	His	Leu	Leu	Arg	Arg	Arg	Asp	Pro	Pro	Phe	Gln	Thr	Pro
		260						265					270		
Lys	Lys	Leu	Tyr	Ala	Gln	Glu	Tyr	Glu	Phe	Glu	Ala	Asp	Glu	Asp	Lys
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Ala	Asp	Val	Pro	Ala	Asp	Ile	Arg	Leu	Asn	Pro	Arg	Arg	Leu	Pro	Asp

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Ile Asp Phe Cys Leu Pro Asn Pro Gly Pro Asp Gly Pro Arg Arg Arg
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Gly Arg Lys Pro Thr Lys Ala Lys Arg Asp Gly Pro Pro Arg Pro Arg
      340              345              350
Gly Arg Pro Arg Ile Arg Pro Leu Glu Val Pro Thr Thr Ala Gly Pro
      355              360              365
Ala Ser Ala Ser Thr Pro Thr Asp Gly Ala Lys Lys Pro Arg Gly Arg
      370              375              380
Gly Arg Gly Arg Gly Arg Lys Ala Glu Glu Ala Gly Gly Thr Arg Leu
385              390              395              400
Glu Pro Leu Lys Pro Leu Lys Ile Lys Leu Ser Val Pro Lys Ala Gly
      405              410              415
Glu Gly Leu Gly Thr Ser Ser Gly Asp Ala Ile Ser Gly Thr Asp His
      420              425              430
Asn Ser Leu Asp Ser Ser Leu Thr Arg Glu Lys Ile Glu Ala Lys Ile
      435              440              445
Lys Glu Val Glu Glu Lys Gln Pro Glu Met Lys Ser Gly Phe Met Ala
      450              455              460
Ser Phe Leu Asp Phe Leu Lys Ser Gly Lys Arg His Pro Pro Leu Tyr
465              470              475              480
Gln Ala Gly Leu Thr Pro Pro Leu Ser Pro Pro Lys Ser Val Pro Pro
      485              490              495
Ser Val Pro Ala Arg Gly Leu Gln Pro Gln Pro Pro Ala Thr Pro Ala
      500              505              510
Val Pro His Pro Pro Pro Ser Gly Ala Phe Gly Leu Gly Gly Ala Leu
      515              520              525
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Lys Arg Leu Asp Glu Glu Leu Lys Arg Asn Leu Glu Thr Leu Pro Ser
545              550              555              560
Phe Ser Ser Asp Glu Glu Asp Ser Val Ala Lys Asn Arg Asp Leu Gln
      565              570              575
Glu Ser Ile Ser Ser Ala Ile Ser Ala Leu Asp Asp Pro Pro Leu Ala
      580              585              590
Gly Pro Lys Asp Thr Ser Thr Pro Asp Gly Pro Pro Leu Ala Pro Ala
      595              600              605
Ala Ala Val Pro Gly Pro Pro Pro Leu Pro Gly Leu Pro Ser Ala Asn
      610              615              620
Ser Asn Gly Thr Pro Glu Pro Pro Leu Leu Glu Glu Lys Pro Pro Pro
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Thr Pro Pro Pro Ala Pro Thr Pro Gln Pro Gln Pro Pro Pro Pro Pro
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Pro Pro Pro Gln Pro Ala Leu Pro Ser Pro Pro Pro Leu Val Ala Pro
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Thr Pro Ser Ser Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro Pro
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Ala Met Pro Ser Pro Pro Pro Pro Pro Pro Ala Ala Ala Pro Leu
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Ala Ala Pro Pro Glu Glu Pro Ala Ala Pro Ser Pro Glu Asp Pro Glu
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<211> 889

<212> DNA

<213> Homo sapiens

<400> 4171

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 Asp Cys Ala Thr Ala Asn Pro Val Pro Ser Gln His Pro Cys Phe Lys
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<212> PRT

<213> Homo sapiens

<400> 4176

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Asp	Ile	Thr	Pro	Thr	Pro	Phe	Val	Pro	Phe	Thr	Val	Ser	His	Leu	Lys
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<211> 4763

<212> DNA

<213> Homo sapiens

<400> 4177

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<211> 398

<212> PRT

<213> Homo sapiens

<400> 4178

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Asp Pro Gly Arg Phe Leu His Met Gly Thr Gln Ala Arg Gln Ser Ile
      20          25          30
Ala Ala His Leu Asp Asn Gln Val Pro Val Glu Ser Pro Arg Ala Ile
      35          40          45
Ser Arg Thr Asn Glu Asn Asp Pro Ala Lys His Gly Asp Gln His Glu
      50          55          60
Gly Gln His Tyr Asn Ile Ser Pro Gln Asp Leu Glu Thr Val Phe Pro
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His Gly Leu Pro Pro Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu
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Ala Cys Leu Met Val Arg Lys Pro Ala Leu Glu Leu Leu His Tyr Leu
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Lys Asn Thr Ser Phe Ala Tyr Pro Ala Ile Arg Tyr Leu Leu Tyr Gly
      115          120          125
Glu Lys Gly Thr Gly Lys Thr Leu Ser Leu Cys His Val Phe His Phe
      130          135          140
Cys Ala Lys Gln Asp Trp Leu Ile Leu His Ile Pro Asp Ala His Leu
      145          150          155          160
Trp Val Lys Asn Cys Arg Asp Leu Leu Gln Ser Ser Tyr Asn Lys Gln
      165          170          175
Arg Phe Asp Gln Pro Leu Glu Ala Ser Thr Trp Leu Lys Asn Phe Lys
      180          185          190
Thr Thr Asn Glu Arg Phe Leu Asn Gln Ile Lys Val Gln Glu Lys Tyr
      195          200          205
Val Trp Asn Lys Arg Glu Leu Thr Glu Lys Gly Ser Pro Leu Gly Glu
      210          215          220
Val Val Glu Gln Gly Ile Thr Arg Val Arg Asn Ala Thr Asp Ala Val
      225          230          235          240
Gly Ile Val Leu Lys Glu Leu Lys Arg Gln Ser Ser Leu Gly Met Phe
      245          250          255
His Leu Leu Val Ala Val Asp Gly Ile Asn Ala Leu Trp Gly Arg Thr
      260          265          270
Thr Leu Lys Arg Glu Asp Lys Ser Pro Ile Ala Pro Glu Glu Leu Ala
      275          280          285
Leu Val His Asn Leu Arg Lys Met Met Lys Asn Asp Trp His Gly Gly
      290          295          300
Ala Ile Val Ser Ala Leu Ser Gln Thr Gly Ser Leu Phe Lys Pro Arg
      305          310          315          320
Lys Ala Tyr Leu Pro Gln Glu Leu Leu Gly Lys Glu Gly Phe Asp Ala
      325          330          335
Leu Asp Pro Phe Ile Pro Ile Leu Val Ser Asn Tyr Asn Pro Lys Glu
      340          345          350
Phe Glu Ser Cys Ile Gln Tyr Tyr Leu Glu Asn Asn Trp Leu Gln His
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<210> 4179

<211> 2208

<212> DNA

<213> Homo sapiens

<400> 4179

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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

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			20				25					30			
Thr	Asp	Cys	Val	Met	Ile	Ser	Thr	Arg	Leu	Val	Ser	Ser	Val	His	Ala
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Val	Leu	Ala	Thr	Gly	Ser	Gly	Ile	Val	Ile	Ile	Arg	Ser	Cys	Asp	Asp
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Cys	Arg	Thr	Arg	Asp	Gln	Asn	Arg	Ala	Pro	Ser	Leu	Thr	Leu	Arg	Asn
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Phe	Leu	Ser	Arg	Asn	Arg	Leu	Met	Ile	Thr	His	His	Ala	Val	Ile	Leu
	115				120							125			
Phe	Val	Leu	Val	Pro	Val	Ala	Gln	Arg	Leu	Arg	Gly	Asp	Leu	Gly	Asp
	130				135						140				
Phe	Phe	Val	Gly	Cys	Ile	Phe	Thr	Ala	Glu	Leu	Ser	Thr	Pro	Phe	Val
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Ser	Leu	Gly	Arg	Val	Leu	Ile	Gln	Leu	Lys	Gln	Gln	His	Thr	Leu	Leu
			165				170						175		
Tyr	Lys	Val	Asn	Gly	Ile	Leu	Thr	Leu	Ala	Thr	Phe	Leu	Ser	Cys	Arg

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 210 215 220
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 245 250 255
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<210> 4181
 <211> 735
 <212> DNA
 <213> Homo sapiens

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<210> 4182
 <211> 192
 <212> PRT
 <213> Homo sapiens

<400> 4182
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	35						40					45			
Val	Gly	Gly	Ile	Ile	Gly	Gly	Ile	Val	Ala	Gly	Leu	Val	Ser	Asp	Tyr
	50				55						60				
Thr	Asn	Gly	Arg	Ala	Thr	Thr	Cys	Cys	Val	Met	Leu	Ile	Leu	Ala	Ala
65					70					75				80	
Pro	Met	Met	Phe	Leu	Tyr	Asn	Tyr	Ile	Gly	Gln	Asp	Gly	Ile	Ala	Ser
			85						90					95	
Ser	Ile	Val	Met	Leu	Ile	Ile	Cys	Gly	Gly	Leu	Val	Asn	Gly	Pro	Tyr
			100						105					110	
Ala	Xaa	Ile	Thr	Thr	Ala	Val	Ser	Ala	Asp	Leu	Gly	Thr	His	Lys	Ser
	115						120					125			
Leu	Lys	Gly	Asn	Ala	Lys	Ala	Leu	Ser	Thr	Val	Thr	Ala	Ile	Ile	Asp
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Gly	Thr	Gly	Ser	Ile	Gly	Ala	Ala	Leu	Gly	Pro	Leu	Leu	Ala	Gly	Leu
145					150					155					160
Ile	Ser	Pro	Thr	Gly	Trp	Asn	Asn	Val	Phe	Tyr	Met	Leu	Ile	Ser	Ala
				165					170					175	
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<210> 4183

<211> 1129

<212> DNA

<213> Homo sapiens

<400> 4183

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420
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<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro
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Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr
	50					55				60					
Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala
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Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser
			85					90						95	
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser
			100					105					110		
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp
		115					120					125			
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln
		130				135					140				
Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg
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Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
			165					170						175	
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
		180						185					190		
Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
		195					200					205			
Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
		210				215						220			
Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln
225					230					235				240	
Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
			245					250						255	
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro
		260						265					270		
Ile	Thr	Pro	Gln	Asp	Val	Asn	Arg	Pro	Leu	Asn	Ala	Ala	Gln	Cys	Leu

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Ser Gln Gln Glu Gln Thr Ala Phe Leu Pro Ala Asn Gln Val Pro Val		
290	295	300
Leu Gln Gln Asn Thr Ser Val Ala Thr Lys Gln Pro Gln Thr Ser Val		
305	310	315
Val Gln Asn Gln Gln Gln Ile Ser Gln Gln Gly Pro Ile Tyr Asp Glu		
	325	330
Val Glu Leu Asp Ala Leu Ala Glu Ile Glu Arg Ile Glu Arg Glu Ser		335
	340	345
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<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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1020

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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35					40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50				55					60					
Glu	Asn	Ile	Pro	Glu	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe	
65				70					75					80	
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
			85					90						95	
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
			100				105						110		
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
		115				120					125				
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
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Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
		180					185						190		
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
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Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
	210				215						220				
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225				230					235					240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

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 260 265 270
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 275 280 285
 Ala Asp Pro Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser
 290 295 300
 Thr Cys Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg
 305 310 315 320
 Met Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
 325 330 335
 Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu Tyr
 340 345 350
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 Arg
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<210> 4187

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4187

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<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
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Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
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Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
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Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
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<211> 1570

<212> DNA

<213> Homo sapiens

<400> 4189

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<211> 523

<212> PRT

<213> Homo sapiens

<400> 4190

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Met	Val	Ser	Thr	Val	Glu	Cys	Ala	Leu	Lys	His	Val	Ser	Asp	Trp	Leu
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Lys	Cys	Leu	Asn	Ala	Leu	Ala	Ser	Leu	Arg	His	Ala	Lys	Trp	Phe	Gln
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Gln	Lys	Tyr	Ser	Trp	Ser	Val	Thr	Asp	Lys	Glu	Gly	Ala	Gly	Ser	Ser

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<211> 1661

<212> DNA

<213> Homo sapiens

<400> 4191

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<213> Homo sapiens

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<211> 6439

<212> DNA

<213> Homo sapiens

<400> 4193

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<210> 4194
 <211> 519
 <212> PRT
 <213> Homo sapiens

<400> 4194
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 Ile Pro Glu Asp Leu Ser Thr Thr Ser Gly Gly Gln Gln Ser Ser Lys
 35 40 45
 Ser Asp Arg Val Val Ala Ser Asn Val Lys Val Glu Thr Gln Ser Asp
 50 55 60
 Glu Glu Asn Gly Arg Ala Cys Glu Met Asn Gly Glu Glu Cys Ala Glu
 65 70 75 80
 Asp Leu Arg Met Leu Asp Ala Ser Gly Glu Lys Met Asn Gly Ser His
 85 90 95
 Arg Asp Gln Gly Ser Ser Ala Leu Ser Gly Val Gly Gly Ile Arg Leu
 100 105 110
 Pro Asn Gly Lys Leu Lys Cys Asp Ile Cys Gly Ile Ile Cys Ile Gly
 115 120 125
 Pro Asn Val Leu Met Val His Lys Arg Ser His Thr Gly Glu Arg Pro
 130 135 140
 Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu
 145 150 155 160
 Leu Arg His Ile Lys Leu His Ser Gly Glu Lys Pro Phe Lys Cys His
 165 170 175
 Leu Cys Asn Tyr Ala Cys Arg Arg Arg Asp Ala Leu Thr Gly His Leu
 180 185 190
 Arg Thr His Ser Val Gly Lys Pro His Lys Cys Gly Tyr Cys Gly Arg
 195 200 205
 Ser Tyr Lys Gln Arg Ser Ser Leu Glu Glu His Lys Glu Arg Cys His
 210 215 220
 Asn Tyr Leu Glu Ser Met Gly Leu Pro Gly Thr Leu Tyr Pro Val Ile
 225 230 235 240
 Lys Glu Glu Thr Asn His Ser Glu Met Ala Glu Asp Leu Cys Lys Ile
 245 250 255
 Gly Ser Glu Arg Ser Leu Val Leu Asp Arg Leu Ala Ser Asn Val Ala
 260 265 270
 Lys Arg Lys Ser Ser Met Pro Gln Lys Phe Leu Gly Asp Lys Gly Leu
 275 280 285
 Ser Asp Thr Pro Tyr Asp Ser Ser Ala Ser Tyr Glu Lys Glu Asn Glu
 290 295 300
 Met Met Lys Ser His Val Met Asp Gln Ala Ile Asn Asn Ala Ile Asn
 305 310 315 320
 Tyr Leu Gly Ala Glu Ser Leu Arg Pro Leu Val Gln Thr Pro Pro Gly
 325 330 335
 Gly Ser Glu Val Val Pro Val Ile Ser Pro Met Tyr Gln Leu His Lys


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          340          345          350
Pro Leu Ala Glu Gly Thr Pro Arg Ser Asn His Ser Ala Gln Asp Ser
          355          360          365
Ala Val Glu Asn Leu Leu Leu Leu Ser Lys Ala Lys Leu Val Pro Ser
          370          375          380
Glu Arg Glu Ala Ser Pro Ser Asn Ser Cys Gln Asp Ser Thr Asp Thr
385          390          395          400
Glu Ser Asn Asn Glu Glu Gln Arg Ser Gly Leu Ile Tyr Leu Thr Asn
          405          410          415
His Ile Ala Pro His Ala Arg Asn Gly Leu Ser Leu Lys Glu Glu His
          420          425          430
Arg Ala Tyr Asp Leu Leu Arg Ala Ala Ser Glu Asn Ser Gln Asp Ala
          435          440          445
Leu Arg Val Val Ser Thr Ser Gly Glu Gln Met Lys Val Tyr Lys Cys
          450          455          460
Glu His Cys Arg Val Leu Phe Leu Asp His Val Met Tyr Thr Ile His
465          470          475          480
Met Gly Cys His Gly Phe Arg Asp Pro Phe Glu Cys Asn Met Cys Gly
          485          490          495
Tyr His Ser Gln Asp Arg Tyr Glu Phe Ser Ser His Ile Thr Arg Gly
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Glu His Arg Phe His Met Ser
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<210> 4195

<211> 1200

<212> DNA

<213> Homo sapiens

<400> 4195

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180
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240
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660
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720

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cgatacatcc gagctgcctt cagtgttccc caaggccgcg tgctggtaca ctgtgccatg
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840
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<210> 4196

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4196

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			20					25					30		
Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Leu	Val	Leu	Leu	Glu	Ala	Leu	Ala
		35					40					45			
Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly	Pro
	50					55					60				
Arg	Ala	Cys	Tyr	Ser	Ile	Trp	Leu	Leu	Leu	Ala	Pro	Thr	Pro	Pro	Leu
65					70					75					80
Ser	His	Cys	Leu	Gln	Ser	Pro	Gln	Lys	Gln	His	Gln	Val	Cys	Gly	Asp
			85						90					95	
Arg	Arg	Leu	Lys	Ala	Ser	Ser	Thr	Asn	Cys	Pro	Ser	Glu	Lys	Cys	Thr
			100					105					110		
Ala	Trp	Ala	Arg	Tyr	Ser	His	Arg	Met	Asp	Ser	Leu	Gln	Lys	Gln	Asp
		115					120					125			
Leu	Arg	Arg	Pro	Lys	Ile	His	Gly	Ala	Val	Gln	Ala	Ser	Pro	Tyr	Gln
	130					135					140				
Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln	Arg	Leu	Leu	Trp	Val	Arg	Gln	Ala
145					150					155					160
Ala	Thr	Leu	Asn	His	Ile	Asp	Glu	Val	Trp	Pro	Ser	Leu	Phe	Leu	Gly
			165						170					175	
Asp	Ala	Tyr	Ala	Ala	Arg	Asp	Lys	Ser	Lys	Leu	Ile	Gln	Leu	Gly	Ile
			180					185					190		
Thr	His	Val	Val	Asn	Ala	Ala	Ala	Gly	Lys	Phe	Gln	Val	Asp	Thr	Gly
		195					200					205			
Ala	Lys	Phe	Tyr	Arg	Gly	Met	Ser	Leu	Glu	Tyr	Tyr	Gly	Ile	Glu	Ala
	210					215					220				
Asp	Asp	Asn	Pro	Phe	Phe	Asp	Leu	Ser	Val	Tyr	Phe	Leu	Pro	Val	Ala
225					230					235					240
Arg	Tyr	Ile	Arg	Ala	Ala	Leu	Ser	Val	Pro	Gln	Gly	Arg	Val	Leu	Val

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                245                250                255
His Cys Ala Met Gly Val Ser Arg Ser Ala Thr Leu Val Leu Ala Phe
                260                265                270
Leu Met Ile Tyr Glu Asn Met Thr Leu Val Glu Ala Ile Gln Thr Val
                275                280                285
Gln Ala His Arg Asn Ile Cys Pro Asn Ser Gly Phe Leu Arg Gln Leu
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Gln Val Leu Asp Asn Arg Leu Gly Arg Glu Thr Gly Arg Phe
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<210> 4197

<211> 597

<212> DNA

<213> Homo sapiens

<400> 4197

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180
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240
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420
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<210> 4198

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4198

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                20                25                30
Met Ala Leu Pro Thr Gln Ala Gln Val Val Ile Cys Gly Gly Gly Ile
                35                40                45
Thr Gly Thr Ser Val Ala His His Gln Ser Lys Met Gly Trp Lys Asp
50                55                60
Ile Val Leu Leu Glu Gln Gly Arg Leu Ala Ala Gly Ser Thr Arg Phe
65                70                75                80
Cys Ala Gly Ile Leu Ser Thr Ala Arg His Leu Thr Ile Glu Gln Lys

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120
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420
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960
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1140

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<210> 4200

<211> 186

<212> PRT

<213> Homo sapiens

<400> 4200

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			20					25					30		
Lys	Thr	Thr	Phe	Val	Asn	Val	Ile	Ala	Ser	Gly	Gln	Phe	Ser	Glu	Asp
		35				40					45				
Met	Ile	Pro	Thr	Val	Gly	Phe	Asn	Met	Arg	Lys	Val	Thr	Lys	Gly	Asn
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Val	Thr	Ile	Lys	Ile	Trp	Asp	Ile	Gly	Gly	Gln	Pro	Arg	Phe	Arg	Ser
65				70					75					80	
Met	Trp	Glu	Arg	Tyr	Cys	Arg	Gly	Val	Asn	Ala	Ile	Val	Tyr	Met	Ile
			85					90					95		
Asp	Ala	Ala	Asp	Arg	Glu	Lys	Ile	Glu	Ala	Ser	Arg	Asn	Glu	Leu	His
			100					105					110		
Asn	Leu	Leu	Asp	Lys	Pro	Gln	Leu	Gln	Gly	Ile	Pro	Val	Leu	Val	Leu
		115				120						125			
Gly	Asn	Lys	Arg	Asp	Leu	Pro	Gly	Ala	Leu	Asp	Glu	Lys	Glu	Leu	Ile
130					135					140					
Glu	Lys	Met	Asn	Leu	Ser	Ala	Ile	Gln	Asp	Arg	Glu	Ile	Cys	Cys	Tyr
145				150					155					160	
Ser	Ile	Ser	Cys	Lys	Glu	Lys	Asp	Asn	Ile	Asp	Ile	Thr	Leu	Gln	Trp
			165					170					175		
Leu	Ile	Gln	His	Ser	Lys	Ser	Arg	Arg	Ser						
			180					185							

<210> 4201
 <211> 917
 <212> DNA
 <213> Homo sapiens

<400> 4201
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 900
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 917

<210> 4202
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 4202
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 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr
 35 40 45
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser
 50 55 60
 Leu Leu Ala Ser Gly Xaa Ala Ala Leu Ala Cys Val Phe Leu Gly Val

65					70					75				80
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<212> PRT

<213> Homo sapiens

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His Ser Arg Lys Ser Thr Val Thr Asp Glu Ser Glu Met Gln Asp Met
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<211> 1016

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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4208

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Gln	Ser	Asp	Thr	Asn	Lys	Arg	Glu	Leu	Val	Gly	Asn	Asp	Phe	Lys	Ser
			20					25					30		
Ile	Asp	Arg	Arg	Thr	Ser	Thr	Pro	Asn	Ser	Arg	Ile	Gln	Arg	Ala	Thr
			35				40					45			
Thr	Val	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Leu	Cys	Thr	Cys	Thr	Glu	Pro
			50			55					60				
Ile	Arg	Lys	Val	Pro	Val	Ser	Lys	Thr	Pro	Lys	Lys	Thr	His	Ser	Asp
65				70					75					80	
Ala	Lys	Lys	Gly	Gln	Asn	Arg	Ser	Ser	Asn	Tyr	Leu	Ser	Cys	Arg	Thr

85 90 95
 Thr Pro Ala Ile Val Pro Pro Lys Lys Phe Arg Gln Cys Pro Glu Pro
 100 105 110
 Thr Ser Thr Ala Glu Lys Leu Gly Leu Lys Lys Gly Pro Arg Lys Ala
 115 120 125
 Tyr Glu Leu Ser Gln Arg Ser Leu Asp Tyr Val Ala Gln Leu Arg Asp
 130 135 140
 His Gly Lys Thr Val Gly Val Val Asp Thr Arg Lys Lys Thr Lys Leu
 145 150 155 160
 Ile Ser Pro Gln Asn Leu Ser Val Arg Asn Asn Lys Lys Leu Leu Thr
 165 170 175
 Ser Gln Glu Leu Gln Met Gln Arg Gln Ile Arg Pro Lys Ser Gln Lys
 180 185 190
 Lys

<210> 4209

<211> 2661

<212> DNA

<213> Homo sapiens

<400> 4209

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 420
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 480
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 660
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 780
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 960

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1980
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2040
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2160
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2220
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2340
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2400
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2460
caggtcaacc ccgaggagat ccagctgggc gaggacgagg acgaggacga gatggacctg
2520
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2580

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 2640
 cgtttgtaca tcaaaaaaaaa a
 2661

<210> 4210

<211> 863

<212> PRT

<213> Homo sapiens

<400> 4210

Xaa	Ser	Cys	Thr	Trp	Ala	Ser	Arg	Lys	Met	Val	Val	Met	Ala	Arg	Leu
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Ser	Arg	Pro	Glu	Arg	Pro	Asp	Leu	Val	Phe	Glu	Glu	Glu	Asp	Leu	Pro
			20				25						30		
Tyr	Glu	Glu	Glu	Ile	Met	Arg	Asn	Gln	Phe	Ser	Val	Lys	Cys	Trp	Leu
	35					40						45			
Arg	Tyr	Ile	Glu	Phe	Lys	Gln	Gly	Ala	Pro	Lys	Pro	Arg	Leu	Asn	Gln
	50				55						60				
Leu	Tyr	Glu	Arg	Ala	Leu	Lys	Leu	Leu	Pro	Cys	Ser	Tyr	Lys	Leu	Trp
65					70				75					80	
Tyr	Arg	Tyr	Leu	Lys	Ala	Arg	Arg	Ala	Gln	Val	Lys	His	Arg	Cys	Val
			85					90						95	
Thr	Asp	Pro	Ala	Tyr	Glu	Asp	Val	Asn	Asn	Cys	His	Glu	Arg	Ala	Phe
			100					105					110		
Val	Phe	Met	His	Lys	Met	Pro	Arg	Leu	Trp	Leu	Asp	Tyr	Cys	Gln	Phe
		115					120					125			
Leu	Met	Asp	Gln	Gly	Arg	Val	Thr	His	Thr	Arg	Arg	Thr	Phe	Asp	Arg
	130				135						140				
Ala	Leu	Arg	Ala	Leu	Pro	Ile	Thr	Gln	His	Ser	Arg	Ile	Trp	Pro	Leu
145					150					155					160
Tyr	Leu	Arg	Phe	Leu	Arg	Ser	His	Pro	Leu	Pro	Glu	Thr	Ala	Val	Arg
			165					170						175	
Gly	Tyr	Arg	Arg	Phe	Leu	Lys	Leu	Ser	Pro	Glu	Ser	Ala	Glu	Glu	Tyr
			180					185					190		
Ile	Glu	Tyr	Leu	Lys	Ser	Ser	Asp	Arg	Leu	Asp	Glu	Ala	Ala	Gln	Arg
	195						200					205			
Leu	Ala	Thr	Val	Val	Asn	Asp	Glu	Arg	Phe	Val	Ser	Lys	Ala	Gly	Lys
	210				215						220				
Ser	Asn	Tyr	Gln	Leu	Trp	His	Glu	Leu	Cys	Asp	Leu	Ile	Ser	Gln	Asn
225				230						235				240	
Pro	Asp	Lys	Val	Gln	Ser	Leu	Asn	Val	Asp	Ala	Ile	Ile	Arg	Gly	Gly
			245					250						255	
Leu	Thr	Arg	Phe	Thr	Asp	Gln	Leu	Gly	Lys	Leu	Trp	Cys	Ser	Leu	Ala
			260					265					270		
Asp	Tyr	Tyr	Ile	Arg	Ser	Gly	His	Phe	Glu	Lys	Ala	Arg	Asp	Val	Tyr
	275					280						285			
Glu	Glu	Ala	Ile	Arg	Thr	Val	Met	Thr	Val	Arg	Asp	Phe	Thr	Gln	Val
	290					295					300				
Phe	Asp	Ser	Tyr	Ala	Gln	Phe	Glu	Glu	Ser	Met	Ile	Ala	Ala	Lys	Met
305					310					315				320	
Glu	Thr	Ala	Ser	Glu	Leu	Gly	Arg	Glu	Glu	Glu	Asp	Asp	Val	Asp	Leu
			325					330						335	
Glu	Leu	Arg	Leu	Ala	Arg	Phe	Glu	His	Leu	Ile	Ser	Arg	Arg	Pro	Leu

3407

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      770              775              780
Glu Gln Leu Ala Ala Glu Ala Glu Arg Asp Gln Pro Leu Arg Ala Gln
785              790              795              800
Ser Lys Ile Leu Phe Val Arg Ser Asp Ala Ser Arg Glu Glu Leu Ala
      805              810              815
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp
      820              825              830
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu
      835              840              845
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp
      850              855              860

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<210> 4211
 <211> 456
 <212> DNA
 <213> Homo sapiens

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<400> 4211
gggatcgct agccccagc ttctcagaac taaatatgaa agctcttgct cgtctacgct
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tagttacaac agactccctg ggctactgt aggggtcaag agcagatttc cagactctca
120
agctggaaaa gagacgctcc acactgcgac gacaaccaac acatgggaca agctgagaaa
180
gtgcactcag gacttcgctg gatgtcacca ccatggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttta aaagacgtaa
300
aattacactt tcactactac tggttcctat ccttggtgcag taaagtacaa cctggccagg
360
gtttaccagc tctacctgca actgagtcag aaaggcaaag tagtcagctt tgtccatgct
420
gtacggaatt tgctccacaa acccccttgc tctaga
456

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<210> 4212
 <211> 81
 <212> PRT
 <213> Homo sapiens

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<400> 4212
Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg
1      5      10      15
Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg
20      25      30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala
35      40      45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg
50      55      60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp
65      70      75      80
Pro

```

<210> 4213

<211> 383

<212> DNA

<213> Homo sapiens

<400> 4213

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 120
 ttcccgagacc cggcccggcc gccctggtag gcctgctcgt cggccttctg ggccgaggcg
 180
 ctgctcacgc tgcgtggcc gctgcgagtg ctggccgagt accgcacggc ctacgcgcac
 240
 taccacgtgg agaagctggt tggcctggag ggcccgaggc cggccagcag cgcaggcggg
 300
 ggctcagcc ccagcgatga gctgctgccc ccgctcacc accgctgcc gcgggtcaac
 360
 acagtagaca gcacggagct cgg
 383

<210> 4214

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4214

Xaa	Ala	Tyr	Leu	Cys	Gln	Arg	Ala	Arg	Phe	Phe	Ala	Glu	Asn	Glu	Gly
1				5					10				15		
Leu	Asp	Asp	Tyr	Met	Glu	Ala	Arg	Glu	Gly	Met	His	Leu	Lys	Asn	Val
			20					25				30			
Asp	Phe	Arg	Glu	Phe	Met	Val	Ala	Phe	Pro	Asp	Pro	Ala	Arg	Pro	Pro
		35					40					45			
Trp	Tyr	Ala	Cys	Ser	Ser	Ala	Phe	Trp	Ala	Ala	Ala	Leu	Leu	Thr	Leu
	50					55					60				
Ser	Trp	Pro	Leu	Arg	Val	Leu	Ala	Glu	Tyr	Arg	Thr	Ala	Tyr	Ala	His
65				70					75				80		
Tyr	His	Val	Glu	Lys	Leu	Phe	Gly	Leu	Glu	Gly	Pro	Gly	Ser	Ala	Ser
			85						90				95		
Ser	Ala	Gly	Gly	Gly	Leu	Ser	Pro	Ser	Asp	Glu	Leu	Leu	Pro	Pro	Leu
		100					105					110			
Thr	His	Arg	Leu	Pro	Arg	Val	Asn	Thr	Val	Asp	Ser	Thr	Glu	Leu	
		115					120					125			

<210> 4215

<211> 939

<212> DNA

<213> Homo sapiens

<400> 4215

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 120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatcctga tccagggctt gacagaagat atggtgactg ttttaatccg ggcctgcgtg
 240
 agcatgctgg gagtcctgt ggacccagat actttgcatg ccaccctttg tttctgtttg
 300
 agggtcactc ggggccccca attagccatg atgtttgcag aactgaagaa taccgcgatg
 360
 atcttgaatt tgacccagag ctccagcttc aatgggttta ctcccctggg cacccttctc
 420
 ttaagacaca tcattgagga cccctgtacc cttcgtcata ccatggaaaa ggttggtcgc
 480
 tcagcagcta caagtggagc tggtagcact acctctgggtg ttgtgtctgg cagcctcggc
 540
 tctcgggaga tcaactacat cttcgtgtc cttgggccag ccgcatgccg caatccagac
 600
 atattcacag aagtggccaa ctgctgtatc cgcctcggcc ttcctgcccc tcgagggtca
 660
 ggaactgctt cagatgatga atttgagaat cttagaatta aaggccctaa tgctgtacag
 720
 ctggtgaaga ccaccctttt gaagccctca cctctgcttg tcatccctga tactatcaag
 780
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat
 840
 aaatctgatc ctaaacctgg gggtatgacc caagagggtg gccagctcct gcaagacatg
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 ggtgatgatg tataccagca gtaccggtca cttacgcgt
 939

<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

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Leu	Glu	Ser	Thr	Asn	Thr	Glu	Lys	Glu	Thr	Ser	Leu	Glu	Glu	Thr	Lys
			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35					40					45			
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
		50				55					60				
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65					70					75				80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85						90					95	
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
		100						105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115					120					125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
		130				135					140				
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr

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145             150             155             160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
             165             170             175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
             180             185             190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
             195             200             205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
             210             215             220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
225             230             235             240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
             245             250             255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
             260             265             270Met Gly Asp Asp
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
             275             280             285

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<210> 4217

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4217

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acacacacac gcacacaaaa ctcagccaca ggctcaccag ggtctctctc aacatgcaca
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catacacaca cacacccttc agtcataggg tcacaagagt ctctcttggtc tctctctcat
120
acatacacac acacacacaa ccagccacag gccacaaaag gtgtctctct ctttgtccct
180
gtctgtcttc tcgcactcac acacacacat ctcagccaca ggcccaccag agtctgtctg
240
tctctttgtc tctctcactc tctctcacac acatacacct cagccacagg ccacaaaggg
300
tctctctcct tgccctggc tcctctctct cgcacactcc cacacacaca catacagctc
360
agccacaggc ccacgagggt gtctctctct ctctctctct ctcacacaca cacacacaca
420
cacacacgcc tgtgcagctc cacagggggc tggggcagga gacagatctg aatacacata
480
ccacctgtg ctgtgagtg ccactcccat ccaacaactg agactttctg ttactggggc
540
aagggtttct gccaaactca cttcccttat aatgaatgaa ttatccctca gaaggttcca
600
cagtcctccc ctggcgcg
619

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<210> 4218

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4218

Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

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      1           5           10           15
Ser Leu Val Ser Leu Ser Tyr Ile His Thr His Thr Gln Pro Ala Thr
      20           25           30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr
      35           40           45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser
      50           55           60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro
      65           70           75           80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro
      85           90           95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu
      100          105          110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln
      115          120          125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr
      130          135          140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn
      145          150          155

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<210> 4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

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ccgctgcagc agcggccacg gcagcgacaa cagcagcgtg ctgagcgggg agctcccgcg
120
ggccatgggg aagacggccc tggtctacca cagcggcggc agcagcggct acgagagcgt
180
gatgcgggac agcagaggcca ccggcagcgc gtcctcggcg caggactcca cgagcgagaa
240
cagcagctcc gtgggcggca ggtgccggag cctcaagacc ccgaagaaac gctccaatcc
300
aggttctcag agacggaggc ttatcccagc actatccctg gacacctctt ccctgtgag
360
aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccttgcg gagcagcccc
420
aggggccttg gggaaccttt gagattaaag tctnatgaaa tcgatgacgt ggagcgccctg
480
cagcggcgac gagggggtgc cagcaaggag gccatgtgct tcaatgcaaa gctgaagatt
540
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600
gagctggagg cgaccaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
660
gacttggagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg
720
acggagcgcc tggagagccg tgtcaacttc tgcaaggccc atctcatgat gctc
774

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<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220
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 20 25 30
 Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35 40 45
 Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50 55 60
 Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65 70 75 80
 Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85 90 95
 Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
 100 105 110
 Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
 115 120 125
 Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
 130 135 140
 Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
 145 150 155 160
 Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
 165 170 175
 Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
 180 185 190
 Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
 195 200 205
 Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
 210 215 220
 Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
 225 230 235 240
 Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
 245 250 255
 Met Leu

<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221
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 120
 gaagcttcaa actgtataaa tttaaagtga tttgcatatt ataaaaataa agataaacat
 180
 atacatattt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
 240

ttaacagaac tgaaatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccttgagaa gccattcgac tttttttttt tttcttttct
 360
 tcaagtagcg cgctccttgg aggatcacag ttctgagggt cagggttgtaa aacatttgct
 420
 ccatgttctc gtccatgctt cccccacca cccctcccc acctcttccc cagtcgtcca
 480
 aaaagcacc tgcaagcacg cgttgtcact caagttcaca gaacacgctg gggtagtgct
 540
 agagggtctg ccagggtgaa aagatgggtc aggtgttcag atgctctctt ttctccatgg
 600
 aaattccaca gccacaaacg tcaactgggtt ctgtgctttt caccaacatt cttcccttaa
 660
 aaattgggtc tcctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga
 720
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 780
 atcacagtc
 789

<210> 4222

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4222

Met	Ala	Tyr	Met	Cys	Thr	Glu	Asn	Lys	Ile	Pro	Glu	Lys	Pro	Phe	Asp
1				5					10					15	
Phe	Phe	Phe	Phe	Ser	Phe	Leu	Gln	Val	Ala	Arg	Ser	Leu	Glu	Asp	His
			20					25					30		
Ser	Ser	Glu	Val	Gln	Val	Val	Lys	His	Leu	Leu	His	Val	Leu	Val	His
		35					40					45			
Ala	Ser	Pro	His	His	Pro	Leu	Pro	Thr	Ser	Ser	Pro	Val	Val	Gln	Lys
		50				55					60				
Ala	Pro	Cys	Lys	His	Ala	Leu	Ser	Leu	Lys	Phe	Thr	Glu	His	Ala	Gly
65				70					75					80	
Val	Ser	Ala	Glu	Gly	Leu	Pro	Gly	Ala	Lys	Asp	Gly	Pro	Gly	Val	Gln
			85					90						95	
Met	Leu	Ser	Phe	Leu	His	Gly	Asn	Ser	Thr	Ala	Thr	Asn	Val	Thr	Gly
			100					105					110		
Phe	Cys	Ala	Phe	His	Gln	His	Ser	Ser	Leu	Lys	Asn	Trp	Cys	Ser	
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<210> 4223

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4223

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 120

ctggtttact acaaccgget gaagaactcg aagattgtca tcagtgactt ccatctggct
 180
 aagctagaaa atggcctcat caaggagccc tgtgggaccc ccgaagattt tgcccccaa
 240
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 300
 tacatcctgc ttccaggcaa tccaccttcc tatgaggagg tggaagaaga tgattatgag
 360
 aaccatgata agaattctctt ccgcaagatc ctggctgggtg actatgagtt tgactctcca
 420
 tattgggatg atatttcgca ggcagccaaa gacctgggtca caaggctgat ggagggtggag
 480
 caagaccagc ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct
 540
 gcttctgata agaacatcaa ggatgggtgc tgtgccccaga ttgaaaagaa ctttgccagg
 600
 gccaaagtga agaaggctgt ccgagtgacc accctcatga aacggctccg ggcaccagag
 660
 cagtccagca cggctgcagc ccagtcggcc tcagccacag aactgccac ccccggggct
 720
 gcagaccgta gtgccacccc agccacagat ggaagtgcc cccagccac tgatggcagt
 780
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 840
 actgacagga gc
 852

<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

Ile Leu Asp Gln Gly Tyr Tyr Ser Glu Arg Asp Thr Ser Asn Val Val
 1 5 10 15
 Arg Gln Val Leu Glu Ala Val Ala Tyr Leu His Ser Leu Lys Ile Val
 20 25 30
 His Arg Asn Leu Lys Leu Glu Asn Leu Val Tyr Tyr Asn Arg Leu Lys
 35 40 45
 Asn Ser Lys Ile Val Ile Ser Asp Phe His Leu Ala Lys Leu Glu Asn
 50 55 60
 Gly Leu Ile Lys Glu Pro Cys Gly Thr Pro Glu Asp Phe Ala Pro Gln
 65 70 75 80
 Gly Glu Gly Arg Gln Arg Tyr Gly Arg Pro Val Asp Cys Trp Ala Ile
 85 90 95
 Gly Val Ile Met Tyr Ile Leu Leu Ser Gly Asn Pro Pro Phe Tyr Glu
 100 105 110
 Glu Val Glu Glu Asp Asp Tyr Glu Asn His Asp Lys Asn Leu Phe Arg
 115 120 125
 Lys Ile Leu Ala Gly Asp Tyr Glu Phe Asp Ser Pro Tyr Trp Asp Asp
 130 135 140
 Ile Ser Gln Ala Ala Lys Asp Leu Val Thr Arg Leu Met Glu Val Glu
 145 150 155 160
 Gln Asp Gln Arg Ile Thr Ala Glu Glu Ala Ile Ser His Glu Trp Ile

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                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
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<210> 4225
 <211> 470
 <212> DNA
 <213> Homo sapiens

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<400> 4225
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120
gacaggggtcc tacagttaac tgcagtcgac gcagacgaag ggtcaaattg ggagatcaca
180
tatgaaatcc ttgttggggc tcaggagagac ttcacatca ataaaacaac agggcttatac
240
accatcgctc caggggtgga aatgatagtc gggcggactt acgcactccc ggtccaagca
300
gcggataatg ctctcctgc aaagcaaagg actcccatct gcactgtgta tattgaagtg
360
cttcaccaa ataatcaaag cctcctcgc tccccacagc tgatgtatag ccttgaaatt
420
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470

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<210> 4226
 <211> 156
 <212> PRT
 <213> Homo sapiens

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<400> 4226
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Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
20        25        30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
35        40        45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
50        55        60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

```

65 70 75 80
Thr Ile Ala Pro Gly Val Glu Met Ile Val Gly Arg Thr Tyr Ala Leu
85 90 95
Pro Val Gln Ala Ala Asp Asn Ala Pro Pro Ala Lys Gln Arg Thr Pro
100 105 110
Ile Cys Thr Val Tyr Ile Glu Val Leu Pro Pro Asn Asn Gln Ser Pro
115 120 125
Pro Arg Phe Pro Gln Leu Met Tyr Ser Leu Glu Ile Ser Glu Ala Met
130 135 140
Arg Val Gly Ala Val Leu Leu Asn Leu Gln Ala Thr
145 150 155
210 215 220 225
<210> 4227 Ser Ser
<211> 1199
<212> DNA
<213> Homo sapiens
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attataaatt taacttttaa catgttttat ggtaaaatt gtactttttt ccttttagcga
120
cattcaaatg catcaaatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta
180
caaattcaga acagtaacaga gcccgacccc ctgcttgcca ctctagaaaa gcaagaaatt
240
atagagcagc ttctatcaaa tattttccac aaggagaaaa atgagtcagc catagtcagt
300
gcaatccaga tattgttgac ttacttgag acacgacgac caacatttga aggccatata
360
gagatctgcc caccaggcat gagccattca gcttgctcag taaacaagag tgttctagaa
420
gccatcagag gaagattgg atcttttcat gaactcctgc tggagccacc caagaaaagt
480
gtgatgaaga ccacatgggg tgtgctggat cctcctgtgg ggaatacccg gttgaatgtc
540
attaggttga tatccagcct gcttcaaacc aataccagca gtataaatgg ggaccttatg
600
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660
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720
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780
ttccaaaaat gtcaattaat agaacgaata cttgaagcct gggaaatgaa tgagaagaaa
840
caggctgagg gaggaagacg gcatgggttac atgggacacc taacgaggat agctaactgt
900
atcgtgcaca gactgacaa gggccccaac agtgcattag tgcagcagct tatcaaagg
960
aagttatttg tgaaatttga attacatttt tgttgggttg caggaaggat ttaagggtea
1020
agtagaaatg catgtagcat ttttaatagt gatttgtggg acttctttat atttggcaaa
1080

ttatgtattt gaatgaggtt cttgagaatg tgtttgaaca gggttgtttt ttgggttgta
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<210> 4228

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4228

Arg His Ser Asn Ala Ser Gln Ser Leu Cys Glu Ile Val Arg Leu Ser
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 Arg Asp Gln Met Leu Gln Ile Gln Asn Ser Thr Glu Pro Asp Pro Leu
 20 25 30
 Leu Ala Thr Leu Glu Lys Gln Glu Ile Ile Glu Gln Leu Leu Ser Asn
 35 40 45
 Ile Phe His Lys Glu Lys Asn Glu Ser Ala Ile Val Ser Ala Ile Gln
 50 55 60
 Ile Leu Leu Thr Leu Leu Glu Thr Arg Arg Pro Thr Phe Glu Gly His
 65 70 75 80
 Ile Glu Ile Cys Pro Pro Gly Met Ser His Ser Ala Cys Ser Val Asn
 85 90 95
 Lys Ser Val Leu Glu Ala Ile Arg Gly Arg Leu Gly Ser Phe His Glu
 100 105 110
 Leu Leu Leu Glu Pro Pro Lys Lys Ser Val Met Lys Thr Thr Trp Gly
 115 120 125
 Val Leu Asp Pro Pro Val Gly Asn Thr Arg Leu Asn Val Ile Arg Leu
 130 135 140
 Ile Ser Ser Leu Leu Gln Thr Asn Thr Ser Ser Ile Asn Gly Asp Leu
 145 150 155 160
 Met Glu Leu Asn Ser Ile Gly Val Ile Leu Asn Met Phe Phe Lys Tyr
 165 170 175
 Thr Trp Asn Asn Phe Leu His Thr Gln Val Glu Ile Cys Ile Ala Leu
 180 185 190
 Ile Leu Ala Ser Pro Phe Glu Asn Thr Glu Asn Ala Thr Ile Thr Asp
 195 200 205
 Gln Asp Ser Thr Gly Asp Asn Leu Leu Leu Lys His Leu Phe Gln Lys
 210 215 220
 Cys Gln Leu Ile Glu Arg Ile Leu Glu Ala Trp Glu Met Asn Glu Lys
 225 230 235 240
 Lys Gln Ala Glu Gly Gly Arg Arg His Gly Tyr Met Gly His Leu Thr
 245 250 255
 Arg Ile Ala Asn Cys Ile Val His Ser Thr Asp Lys Gly Pro Asn Ser
 260 265 270
 Ala Leu Val Gln Gln Leu Ile Lys Gly Lys Leu Phe Val Lys Phe Glu
 275 280 285
 Leu His Phe Cys Trp Val Ala Gly Arg Ile
 290 295

<210> 4229

<211> 1612

<212> DNA

<213> Homo sapiens

<400> 4229

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120
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240
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300
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360
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420
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480
caggtgagcg gcttcctgac caggaaccag gccagcagc ccttctcgct gtggggcccg
540
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720
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780
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900
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1080
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1140
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1320
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1380
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1440
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1500
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1560

gccttcacaga agcaggtccc aaataaagcc agtgcccacc tgaaaaaaaa aa
1612

<210> 4230

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4230

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		20					25					30			
Leu	Arg	Pro	Asp	Thr	Asp	Phe	Gly	Gly	Asn	Met	Lys	Ser	Val	Leu	Thr
	35					40					45				
Trp	Lys	His	Arg	Lys	Glu	His	Ala	Ile	Pro	His	Val	Val	Leu	Gly	Arg
	50					55				60					
Asn	Leu	Pro	Gly	Gly	Ala	Trp	His	Ser	Ile	Glu	Gly	Ser	Met	Val	Ile
65					70					75				80	
Leu	Ser	Gln	Gly	Gln	Trp	Met	Gly	Leu	Pro	Asp	Leu	Glu	Val	Lys	Asp
			85					90					95		
Trp	Met	Gln	Lys	Lys	Arg	Arg	Gly	Leu	Arg	Asn	Ser	Arg	Ala	Thr	Ala
		100					105						110		
Gly	Asp	Ile	Ala	His	Tyr	Tyr	Arg	Asp	Tyr	Val	Val	Lys	Lys	Gly	Leu
	115						120					125			
Gly	His	Asn	Phe	Val	Ser	Gly	Ala	Val	Val	Thr	Ala	Val	Glu	Trp	Gly
	130					135				140					
Thr	Pro	Asp	Pro	Ser	Ser	Cys	Gly	Ala	Gln	Asp	Ser	Ser	Pro	Leu	Phe
145				150					155					160	
Gln	Val	Ser	Gly	Phe	Leu	Thr	Arg	Asn	Gln	Ala	Gln	Gln	Pro	Phe	Ser
			165					170					175		
Leu	Trp	Ala	Arg	Asn	Val	Val	Leu	Ala	Thr	Gly	Thr	Phe	Asp	Ser	Pro
		180					185						190		
Ala	Arg	Leu	Gly	Ile	Pro	Gly	Glu	Ala	Leu	Pro	Phe	Ile	His	His	Glu
	195						200					205			
Leu	Ser	Ala	Leu	Glu	Ala	Ala	Thr	Arg	Val	Gly	Ala	Val	Thr	Pro	Ala
	210					215				220					
Ser	Asp	Pro	Val	Leu	Ile	Ile	Gly	Ala	Gly	Leu	Ser	Ala	Ala	Asp	Ala
225				230					235					240	
Val	Leu	Tyr	Ala	Arg	His	Tyr	Asn	Ile	Pro	Val	Ile	His	Ala	Phe	Arg
			245					250					255		
Arg	Ala	Val	Asp	Asp	Pro	Gly	Leu	Val	Phe	Asn	Gln	Leu	Pro	Lys	Met
		260					265						270		
Leu	Tyr	Pro	Glu	Tyr	His	Lys	Val	His	Gln	Met	Met	Arg	Glu	Gln	Ser
	275						280					285			
Ile	Leu	Ser	Pro	Ser	Pro	Tyr	Glu	Gly	Tyr	Arg	Ser	Leu	Pro	Arg	His
	290					295				300					
Gln	Leu	Leu	Cys	Phe	Lys	Glu	Asp	Cys	Gln	Ala	Val	Phe	Gln	Asp	Leu
305				310					315					320	
Glu	Gly	Val	Glu	Lys	Val	Phe	Gly	Val	Ser	Leu	Val	Leu	Val	Leu	Ile
			325					330				335			
Gly	Ser	His	Pro	Asp	Leu	Ser	Phe	Leu	Pro	Gly	Ala	Gly	Ala	Asp	Phe
			340					345				350			
Ala	Val	Asp	Pro	Asp	Gln	Pro	Leu	Ser	Ala	Lys	Arg	Asn	Pro	Ile	Asp


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          355          360          365
Val Asp Pro Phe Thr Tyr Gln Ser Thr Arg Gln Glu Gly Leu Tyr Ala
      370          375          380
Met Gly Pro Leu Ala Gly Asp Asn Phe Val Arg Phe Val Gln Gly Gly
385          390          395          400
Ala Leu Ala Val Ala Ser Ser Leu Leu Arg Lys Glu Thr Arg Lys Pro
          405          410          415
Pro

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<210> 4231

<211> 1588

<212> DNA

<213> Homo sapiens

<400> 4231

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120
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180
caagaaaaga ctgttttaaa ttcagaagtt cttgaacaga gaaaagtctt agaaaaatgc
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300
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360
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420
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480
caaaagggtca aagaattaga agagcaacta gaaaatgaaa cactccacaa agaaatacac
540
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600
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660
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720
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780
ggcagtgggtg ctaagaaaga aaaggcaact caaccagaaa caactgaaga agtcacagat
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900
cccgttaatc agacagccag accgaagaca aagccagaat cttcgaaagg ctgcgaaagt
960
gcagtggatg aactaaaagg aatactgggg acacttaaca aatccactag ttcaagaagc
1020
ttaaaatccc ttgaccctga aaacagtga actgagttag aaaggatttt gcgtcgcaga
1080
aagggtgacag cagaagcaga tagcagtagt ccaactggga tattagccac ctcagagtcc
1140

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aaatccatgc cagtgttggg ttctgtatcc agtgtaacaa aaacagcctt gaacaagaaa
 1200
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 1260
 cgtaaattgg aaggatgcac aagttccaag gttacgtttc agtaagtaac gatgctcttt
 1320
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 1380
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 1440
 cagctttttc attctaggct cctagataag agatctaatt aagatccaaa gcaagtacca
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 1560
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 1588

<210> 4232

<211> 434

<212> PRT

<213> Homo sapiens

<400> 4232

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 20 25 30
 Glu Glu Lys Lys Ile Leu Ala Ile Glu Leu Glu Asn Leu Lys Ser Lys
 35 40 45
 Leu Val Glu Val Ile Glu Glu Val Asn Lys Val Lys Gln Glu Lys Thr
 50 55 60
 Val Leu Asn Ser Glu Val Leu Glu Gln Arg Lys Val Leu Glu Lys Cys
 65 70 75 80
 Asn Arg Val Ser Met Leu Ala Val Glu Glu Tyr Glu Glu Met Gln Val
 85 90 95
 Asn Leu Glu Leu Glu Lys Asp Leu Arg Lys Lys Ala Glu Ser Phe Ala
 100 105 110
 Gln Glu Met Phe Leu Glu Pro Asn Gln Gly Lys Lys Thr Lys Pro Pro
 115 120 125
 Phe Gly Arg Gln Ser Ser Ile Leu Asp Gln Gln Leu Ala Leu Asp Glu
 130 135 140
 Asn Ala Lys Leu Thr Gln Gln Leu Glu Glu Arg Ile Gln His Gln
 145 150 155 160
 Gln Lys Val Lys Glu Leu Glu Glu Gln Leu Glu Asn Glu Thr Leu His
 165 170 175
 Lys Glu Ile His Asn Leu Lys Gln Gln Leu Glu Leu Leu Glu Glu Asp
 180 185 190
 Lys Lys Glu Leu Glu Leu Lys Tyr Gln Asn Ser Glu Glu Lys Ala Arg
 195 200 205
 Asn Leu Lys His Ser Val Asp Glu Leu Gln Lys Arg Val Asn Gln Ser
 210 215 220
 Glu Asn Ser Val Pro Pro Pro Pro Pro Pro Pro Pro Leu Pro Pro
 225 230 235 240
 Pro Pro Pro Asn Pro Ile Arg Ser Leu Met Ser Met Ile Arg Lys Arg

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Ser His Pro Ser Gly Ser Gly Ala Lys Lys Glu Lys Ala Thr Gln Pro
                260                265                270
Glu Thr Thr Glu Glu Val Thr Asp Leu Lys Arg Gln Ala Val Glu Glu
                275                280                285
Met Met Asp Arg Ile Lys Lys Gly Val His Leu Arg Pro Val Asn Gln
                290                295                300
Thr Ala Arg Pro Lys Thr Lys Pro Glu Ser Ser Lys Gly Cys Glu Ser
305                310                315                320
Ala Val Asp Glu Leu Lys Gly Ile Leu Gly Thr Leu Asn Lys Ser Thr
                325                330                335
Ser Ser Arg Ser Leu Lys Ser Leu Asp Pro Glu Asn Ser Glu Thr Glu
                340                345                350
Leu Glu Arg Ile Leu Arg Arg Arg Lys Val Thr Ala Glu Ala Asp Ser
                355                360                365
Ser Ser Pro Thr Gly Ile Leu Ala Thr Ser Glu Ser Lys Ser Met Pro
                370                375                380
Val Leu Gly Ser Val Ser Ser Val Thr Lys Thr Ala Leu Asn Lys Lys
385                390                395                400
Thr Leu Glu Ala Glu Phe Asn Ser Pro Ser Pro Pro Thr Pro Glu Pro
                405                410                415
Gly Glu Gly Pro Arg Lys Leu Glu Gly Cys Thr Ser Ser Lys Val Thr
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Phe Gln

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<210> 4233

<211> 2827

<212> DNA

<213> Homo sapiens

<400> 4233

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<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

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Phe	Ala	Gly	Phe	Arg	Thr	Arg	Ser	Gln	Met	Leu	Leu	Gly	His	Ile	Glu
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Glu	Gln	Asp	Lys	Val	Leu	His	Cys	Gln	Phe	Ser	Asp	Asn	Ser	Asp	Asp
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Asp	Thr	Gln	Asp	Glu	Thr	Gln	Lys	Ser	Asp	Leu	Glu	Asn	Glu	Asp	Leu
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Lys	Ile	Asp	Cys	Leu	Gln	Glu	Ser	Gln	Glu	Leu	Asn	Leu	Gln	Lys	Leu
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Lys	Asn	Ser	Glu	Arg	Ile	Leu	Thr	Glu	Ala	Lys	Gln	Lys	Met	Arg	Glu
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Leu	Thr	Val	Asn	Ile	Lys	Met	Lys	Glu	Asp	Leu	Ile	Lys	Glu	Leu	Ile
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Arg Lys Leu Arg Glu Glu Asn Glu Lys Arg Lys Gln Leu Asp Ala Val
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Ile Lys Arg Asp Gln Gln Lys Ile Lys Val Ile Gln Leu Lys Thr Gly
305          310          315          320
Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn
          325          330          335
Leu Lys Arg Arg Lys Gly Ser Phe Gly Ser Ile Asp His Leu Gln Lys
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385          390          395          400
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          405          410          415
Leu Lys Ile Ser Thr Arg Leu Asn Leu Leu Glu Gln Glu Leu Ser Glu
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Lys Asn Val Gln Leu Gln Thr Ser Thr Ala Glu Glu Lys Thr Lys Ile
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465          470          475          480
Pro Glu Glu Glu His Val Leu Phe Gln Leu Glu Glu Gly Ile Glu Ala
          485          490          495
Leu Glu Ala Ala Ile Glu Tyr Arg Asn Glu Ser Ile Gln Asn Arg Gln
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Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn
          515          520          525
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile
          530          535          540
Leu Phe Arg Tyr Phe Asn Lys Val Val Asn Leu Arg Glu Ala Glu Arg
545          550          555          560
Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg
          565          570          575
Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu
          580          585          590
Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys
          595          600          605
Met Gln Leu Leu Leu His His Phe Lys Glu Gln Asp Gly Glu Gly Ile
          610          615          620
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        675                680                685
Leu Ser Glu Glu Leu Lys Trp Ala Ser Arg Pro Glu Ser Met Lys Leu
        690                695                700
Ser Gly Arg Glu Arg Glu Met Asp Ser Ser Ala Ser Ser Leu Arg Thr
705                710                715                720
Gln Pro Asn Pro Gln Lys Leu Trp Glu Asp Ile Pro Glu Leu Pro Pro
        725                730                735
Ile His Ser Ser Leu Ala Pro Pro Ser Gly His Met Leu Gly Asn Glu
        740                745                750
Asn Lys Thr Glu Thr Asp Asp Asn Gln Phe Thr Lys Ser His Ser Arg
        755                760                765
Leu Ser Ser Gln Ile Gln Val Val Gly Asn Val Gly Arg Leu His Gly
        770                775                780
Val Thr Pro Val Lys Leu Cys Arg Lys Glu Leu Arg Gln Ile Ser Ala
785                790                795                800
Leu Glu Leu Ser Leu Arg Arg Ser Ser Leu Gly Val Gly Ile Gly Ser
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<210> 4235

<211> 971

<212> DNA

<213> Homo sapiens

<400> 4235

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 Ser Arg Gly Phe Glu Asn Leu Val Pro Tyr Thr Ser Thr Val Ser Val
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 85 90 95
 Glu Trp Asn Leu Glu Leu Glu Asp Gln Glu Lys Tyr Phe Leu Leu Gln
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 Ala Thr Gln Val Asn Ala Trp Asp His Thr Leu Ile Glu Asn Gly Glu
 115 120 125
 Met Ile Arg Ile Leu His Gly Glu Val Asn Lys Val Lys Leu Asp Gln
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 Lys Arg Leu Glu Gln Glu Leu Asp Phe Ile Leu Ser Gln Gln Gln Glu
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 Leu Glu Phe Leu Leu Thr Tyr Leu Glu Glu Ser Thr Arg Asp Gln Ser
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 <211> 560
 <212> DNA
 <213> Homo sapiens

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<210> 4238

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4238

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			20					25					30		
His	Ser	Pro	Glu	Leu	Leu	Pro	Val	Pro	Ile	Leu	Asp	Ser	Leu	Ser	Cys
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Phe	Leu	Asp	Ser	Leu	Ser	Cys	Phe	Leu	Asp	Ser	Leu	Gln	Ile	Ala	Arg
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Ala	Met	Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg
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Glu	Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
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<212> DNA

<213> Homo sapiens

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<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

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 Ser Pro Ser Leu Ser Ser Tyr Ser Asp Pro Asp Ser Gly His Tyr Cys
 485 490 495
 Gln Leu Gln Pro Pro Val Arg Gly Ser Arg Glu Trp Ala Ala Thr Glu
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 Thr Ser Ser Gln Gln Ala Arg Ser Tyr Gly Glu Arg Leu Lys Glu Leu
 515 520 525
 Ser Glu Asn Gly Ala Pro Glu Gly Asp Trp Gly Lys Thr Phe Thr Val
 530 535 540
 Pro Ile Val Glu Val Thr Ser Ser Phe Asn Pro Ala Thr Phe Gln Ser
 545 550 555 560
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 565 570 575
 Lys Val Lys Glu Leu Leu Ala Glu Val Asp Ala Arg Thr Leu Ala Arg
 580 585 590
 His Val Thr Lys Val Asp Cys Leu Val Ala Arg Ile Leu Gly Val Thr
 595 600 605
 Lys Glu Met Gln Thr Leu Met Gly Val Arg Trp Gly Met Glu Leu Leu
 610 615 620
 Thr Leu Pro His Gly Arg Gln Leu Arg Leu Asp Leu Leu Glu Arg Phe
 625 630 635 640
 His Thr Met Ser Ile Met Leu Ala Val Asp Ile Leu Gly Cys Thr Gly
 645 650 655
 Ser Ala Glu Glu Arg Ala Ala Leu Leu His Lys Thr Ile Gln Leu Ala
 660 665 670
 Ala Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val
 675 680 685
 Met Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp
 690 695 700
 Val Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys
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 755 760 765
 Thr Glu His Gly Val Glu Val Val Leu Ala His Leu Glu Ala Ala Arg
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 <212> PRT
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<400> 4243

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 <213> Homo sapiens

<400> 4244

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Val Arg Val Ser Val Asn Val Leu Asn Lys Gln Lys Gly Ala Pro Leu
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Leu Ile Leu Arg Gly Met Phe Gln Arg Lys Tyr Leu Tyr Gln Lys Val
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Phe Phe Tyr Val Asp Val Ser Thr Leu Ser Pro Val Asn Thr Thr Tyr
      130          135          140
Gln Leu Arg Val Ser Arg Met Asp Asp Phe Val Leu Arg Thr Gly Glu
      145          150          155          160
Gln Phe Ser Phe Asn Thr Thr Ala Ala Gln Pro Gln Tyr Phe Lys Tyr
      165          170          175
Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
      180          185          190
Lys Ala Phe Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro
      195          200          205
Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
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Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
      225          230          235          240
Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala Cys
      245          250          255
Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
      260          265          270
Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val Ser Gln Ala Val
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Thr Ser Glu Ala Tyr Val Ser Gly Met Leu Phe Cys Leu Gly Ile Phe
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Glu Ser Ala Ser Leu Leu Gly His Pro Arg Val Leu Ala Asp Ser Phe
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Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
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 Asn Asp Phe Ala Ser Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu
 740 745 750
 Leu Tyr Phe Ala Phe Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg
 755 760 765
 Ile Lys Leu Ile Pro Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp
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 Gly Phe Ala Leu Phe Phe Phe Phe Gln Gly Leu Ser Thr Trp Gln Lys
 785 790 795 800
 Thr Pro Ala Glu Ser Arg Glu His Asn Arg Asp Cys Ile Leu Leu Asp

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Thr Gln Ala Asp Met Gly Glu Lys Leu Ser Cys Thr Ser Asn His Leu
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Ala Glu Cys Gln Ala Ala Met Leu Arg Lys Asp Lys Glu Gly Ala Ala
      85           90           95
Leu Arg Glu Asp Leu Glu Arg Thr Gln Lys Glu Leu Glu Lys Ala Thr
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Thr Lys Ile Gln Glu Tyr Tyr Asn Lys Leu Cys Gln Glu Val Thr Asn
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Arg Glu Arg Asn Asp Gln Lys Met Leu Ala Asp Leu Asp Asp Leu Asn
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Arg Thr Lys Lys Tyr Leu Glu Glu Arg Leu Ile Glu Leu Leu Arg Asp
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<212> DNA

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<210> 4248
 <211> 1297
 <212> PRT
 <213> Homo sapiens

<400> 4248
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 Ala Pro Ser Pro Leu Pro Leu His Thr His Ala Arg Ser Leu Ala Gly
 35 40 45
 Ala Arg Thr Pro Pro Ala Pro Asp Pro His Leu Gly Gly Arg His Thr
 50 55 60
 Leu Gly Ser Pro Ser Arg Gly Ser Arg Ser Gly Met Glu Ala Ala Arg
 65 70 75 80
 Thr Glu Arg Pro Ala Gly Arg Pro Gly Ala Pro Leu Val Arg Thr Gly
 85 90 95
 Leu Leu Leu Leu Ser Thr Trp Val Leu Ala Gly Ala Glu Ile Thr Trp
 100 105 110
 Asp Ala Thr Gly Gly Pro Gly Arg Pro Ala Ala Pro Ala Ser Arg Pro
 115 120 125
 Pro Ala Leu Ser Pro Leu Ser Pro Arg Ala Val Ala Ser Gln Trp Pro
 130 135 140
 Glu Glu Leu Ala Ser Ala Arg Arg Ala Ala Val Leu Gly Arg Arg Ala
 145 150 155 160
 Gly Pro Glu Leu Leu Pro Gln Gln Gly Gly Gly Arg Gly Gly Glu Met
 165 170 175
 Gln Val Glu Ala Gly Gly Thr Ser Pro Ala Gly Glu Arg Arg Gly Arg
 180 185 190
 Gly Ile Pro Ala Pro Ala Lys Leu Gly Gly Ala Arg Arg Ser Arg Arg
 195 200 205
 Ala Gln Pro Pro Ile Thr Gln Glu Arg Gly Asp Ala Trp Ala Thr Ala

210	215	220
Pro Ala Asp Gly Ser Arg Gly Ser Arg Pro Leu Ala Lys Gly Ser Arg		
225	230	235
Glu Glu Val Lys Ala Pro Arg Ala Gly Gly Ser Ala Ala Glu Asp Leu		240
	245	250
Arg Leu Pro Ser Thr Ser Phe Ala Leu Thr Gly Asp Ser Ala His Asn		255
	260	265
Gln Ala Met Val His Trp Ser Gly His Asn Ser Ser Val Ile Leu Ile		270
	275	280
Leu Thr Lys Leu Tyr Asp Phe Asn Leu Gly Ser Val Thr Glu Ser Ser		285
	290	295
Leu Trp Arg Ser Thr Asp Tyr Gly Thr Thr Tyr Glu Lys Leu Asn Asp		300
305	310	315
Lys Val Gly Leu Lys Thr Val Leu Ser Tyr Leu Tyr Val Asn Pro Thr		320
	325	330
Asn Lys Arg Lys Ile Met Leu Leu Ser Asp Pro Glu Met Glu Ser Ser		335
	340	345
Ile Leu Ile Ser Ser Asp Glu Gly Ala Thr Tyr Gln Lys Tyr Arg Leu		350
	355	360
Thr Phe Tyr Ile Gln Ser Leu Phe His Pro Lys Gln Glu Asp Trp		365
	370	375
Val Leu Ala Tyr Ser Leu Asp Gln Lys Leu Tyr Ser Ser Met Asp Phe		380
385	390	395
Gly Arg Arg Trp Gln Leu Met His Glu Arg Ile Thr Pro Asn Arg Phe		400
	405	410
Tyr Trp Ser Val Ala Gly Leu Asp Lys Glu Ala Asp Leu Val His Met		415
	420	425
Glu Val Arg Thr Thr Asp Gly Tyr Ala His Tyr Leu Thr Cys Arg Ile		430
	435	440
Gln Glu Cys Ala Glu Thr Thr Arg Ser Gly Pro Phe Ala Arg Ser Ile		445
	450	455
Asp Ile Ser Ser Leu Val Val Gln Asp Glu Tyr Ile Phe Ile Gln Val		460
465	470	475
Thr Thr Ser Gly Arg Ala Ser Tyr Tyr Val Ser Tyr Arg Arg Glu Ala		480
	485	490
Phe Ala Gln Ile Lys Leu Pro Lys Tyr Ser Leu Pro Lys Asp Met His		495
	500	505
Ile Ile Ser Thr Asp Glu Asn Gln Val Phe Ala Ala Val Gln Glu Trp		510
	515	520
Asn Gln Asn Asp Thr Tyr Asn Leu Tyr Ile Ser Asp Thr Arg Gly Ile		525
	530	535
Tyr Phe Thr Leu Ala Met Glu Asn Ile Lys Ser Ser Arg Gly Leu Met		540
545	550	555
Gly Asn Ile Ile Ile Glu Leu Tyr Glu Val Ala Gly Ile Lys Gly Ile		560
	565	570
Phe Leu Ala Asn Lys Lys Val Asp Asp Gln Val Lys Thr Tyr Ile Thr		575
	580	585
Tyr Asn Lys Gly Arg Asp Trp Arg Leu Leu Gln Ala Pro Asp Val Asp		590
	595	600
Leu Arg Gly Ser Pro Val His Cys Leu Leu Pro Phe Cys Ser Leu His		605
	610	615
Leu His Leu Gln Leu Ser Glu Asn Pro Tyr Ser Ser Gly Arg Ile Ser		620
625	630	635
Ser Lys Glu Thr Ala Pro Gly Leu Val Val Ala Thr Gly Asn Ile Gly		640

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        645                650                655
Pro Glu Leu Ser Tyr Thr Asp Ile Gly Val Phe Ile Ser Ser Asp Gly
        660                665                670
Gly Asn Thr Trp Arg Gln Ile Phe Asp Glu Glu Tyr Asn Val Trp Phe
        675                680                685
Leu Asp Trp Gly Gly Ala Leu Val Ala Met Lys His Thr Pro Leu Pro
        690                695                700
Val Arg His Leu Trp Val Ser Phe Asp Glu Gly His Ser Trp Asp Lys
705                710                715                720
Tyr Gly Phe Thr Ser Val Pro Leu Phe Val Asp Gly Ala Leu Val Glu
        725                730                735
Ala Gly Met Glu Thr His Ile Met Thr Val Phe Gly His Phe Ser Leu
        740                745                750
Arg Ser Glu Trp Gln Leu Val Lys Val Asp Tyr Lys Ser Ile Phe Ser
        755                760                765
Arg His Cys Thr Lys Glu Asp Tyr Gln Thr Trp His Leu Leu Asn Gln
770                775                780
Gly Glu Pro Cys Val Met Gly Glu Arg Lys Ile Phe Lys Lys Arg Lys
785                790                795                800
Pro Gly Ala Gln Cys Ala Leu Gly Arg Asp His Ser Gly Ser Val Val
        805                810                815
Ser Glu Pro Cys Val Cys Ala Asn Trp Asp Phe Glu Cys Asp Tyr Gly
        820                825                830
Tyr Glu Arg His Gly Glu Ser Gln Cys Val Pro Ala Phe Trp Tyr Asn
        835                840                845
Pro Ala Ser Pro Ser Lys Asp Cys Ser Leu Gly Gln Ser Tyr Leu Asn
        850                855                860
Ser Thr Gly Tyr Arg Arg Ile Val Ser Asn Asn Cys Thr Asp Gly Leu
865                870                875                880
Arg Glu Lys Tyr Thr Ala Lys Ala Gln Met Cys Pro Gly Lys Ala Pro
        885                890                895
Arg Gly Leu His Val Val Thr Thr Asp Gly Arg Leu Val Ala Glu Gln
        900                905                910
Gly His Asn Ala Thr Phe Ile Ile Leu Met Glu Glu Gly Asp Leu Gln
        915                920                925
Arg Thr Asn Ile Gln Leu Asp Phe Gly Asp Gly Ile Ala Val Ser Tyr
        930                935                940
Ala Asn Phe Ser Pro Ile Glu Asp Gly Ile Lys His Val Tyr Lys Ser
945                950                955                960
Ala Gly Ile Phe Gln Val Thr Ala Tyr Ala Glu Asn Asn Leu Gly Ser
        965                970                975
Asp Thr Ala Val Leu Phe Leu His Val Val Cys Pro Val Glu His Val
        980                985                990
His Leu Arg Val Pro Phe Val Ala Ile Arg Asn Lys Glu Val Asn Ile
        995                1000                1005
Ser Ala Val Val Trp Pro Ser Gln Leu Gly Thr Leu Thr Tyr Phe Trp
1010                1015                1020
Trp Phe Gly Asn Ser Thr Lys Pro Leu Ile Thr Leu Asp Ser Ser Ile
1025                1030                1035                1040
Ser Phe Thr Phe Leu Ala Glu Gly Thr Asp Thr Ile Thr Val Gln Val
        1045                1050                1055
Ala Ala Gly Asn Ala Leu Ile Gln Asp Thr Lys Glu Ile Ala Val His
        1060                1065                1070
Glu Tyr Phe Gln Ser Gln Leu Leu Ser Phe Ser Pro Asn Leu Asp Tyr

```

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      1075      1080      1085
His Asn Pro Asp Ile Pro Glu Trp Arg Lys Asp Ile Gly Asn Val Ile
  1090      1095      1100
Lys Arg Ala Leu Val Lys Val Thr Ser Val Pro Glu Asp Gln Ile Leu
  1105      1110      1115      1120
Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu
      1125      1130      1135
Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu
      1140      1145      1150
Glu Gln Ile Val Glu Thr Leu Phe Asn Ala Leu Asn Gln Asn Leu Val
      1155      1160      1165
Gln Phe Glu Leu Lys Pro Gly Val Gln Val Ile Val Tyr Val Thr Gln
      1170      1175      1180
Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser
  1185      1190      1195      1200
Ala Met Leu Met Leu Leu Ser Val Val Phe Val Gly Leu Ala Val Phe
      1205      1210      1215
Leu Ile Tyr Lys Phe Lys Arg Lys Ile Pro Trp Ile Asn Ile Tyr Ala
      1220      1225      1230
Gln Val Gln His Asp Lys Glu Gln Glu Met Ile Gly Ser Val Ser Gln
      1235      1240      1245
Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu Pro Glu
      1250      1255      1260
Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala
  1265      1270      1275      1280
Thr Ile Ala Asn Ser Glu Ser Thr Lys Glu Ile Pro Asn Cys Thr Ser
      1285      1290      1295
Val

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<210> 4249
<211> 553
<212> DNA
<213> Homo sapiens

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<400> 4249
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120
cccagcacgc aacatggtaa aattcgcaat gcctcaggca tcaacccgag agtaccaggc
180
ccacaggaag gcagcataat aggaccccaa acaaggagga aaagcagcct cctgaaaccg
240
accctgatat cagaaccagc agacatgggc actcagcagt tcttacaact gaatcccaat
300
ctgcaaaaagt ttagtagaga catggaagac gtaaagggga cccaagcaa gcctctagag
360
aattataaca tgttggctgg gcttggtggc tcacgcgtgt catcgcagca ctttgggagg
420
ctgaggcagg aggatcgctt gagcccagga gttcaagacc agcctggacc acatagttag
480
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540

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ggatgagatt aac
553

<210> 4250
<211> 164
<212> PRT
<213> Homo sapiens

<400> 4250
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Leu Lys Leu Phe Leu Arg Asn Ser Thr Ala Ser Arg Thr Lys Ile Lys
20 25 30
Met Ile Tyr Lys Asn Ala Lys Thr Pro Ser Thr Gln His Gly Lys Ile
35 40 45
Arg Asn Ala Ser Gly Ile Asn Pro Arg Val Pro Gly Pro Gln Glu Gly
50 55 60
Ser Ile Ile Gly Pro Gln Thr Arg Arg Lys Ser Ser Leu Leu Lys Pro
65 70 75 80
Thr Leu Ile Ser Glu Pro Ala Asp Met Gly Thr Gln Gln Phe Leu Gln
85 90 95
Leu Asn Pro Asn Leu Gln Lys Phe Ser Arg Asp Met Glu Asp Val Lys
100 105 110
Gly Thr Pro Ser Lys Pro Leu Glu Asn Tyr Asn Met Leu Ala Gly Leu
115 120 125
Gly Gly Ser Arg Val Ser Ser Gln His Phe Gly Arg Leu Arg Gln Glu
130 135 140
Asp Arg Leu Ser Pro Gly Val Gln Asp Gln Pro Gly Pro His Ser Glu
145 150 155 160
Thr Pro Ile Ser

<210> 4251
<211> 1574
<212> DNA
<213> Homo sapiens

<400> 4251
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120
gggggggggc caggccctaa ccccatattt ttcatccac agatgagggc aaccttaaga
180
gggaaggggg agatggcagg gccagcgggc gcaggaagtg ccttcccacc ccaggacct
240
gacacatctc gtctcccctc ttttcgcac tgtgggcaca aagacacttt ttcttcgcga
300
ggggcgggag cccctagttc caaactgag gacgcgtgac atgggtgggca ccggaaagga
360
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420
cgcccccttc ccactcacca cccccacccc aggtgctggg ggtcccttat ttttatgcaa
480

taactgagct tgatgggggt gggcaggggg ccagttgagc caatcaccag cctccatatt
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 780
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 1560
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<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

Met	Gly	Val	Gly	Arg	Gly	Pro	Val	Glu	Pro	Ile	Thr	Ser	Leu	His	Ile
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Thr	Asp	Pro	Asp	Pro	Glu	Ser	Gln	Glu	Leu	Gln	Ile	Gly	Gly	Thr	Cys
		20						25					30		
Pro	Asp	Ile	Thr	Lys	Arg	Tyr	Leu	Arg	Leu	Thr	Cys	Ala	Pro	Asp	Pro
		35					40				45				
Ser	Thr	Val	Arg	Pro	Val	Ala	Val	Leu	Lys	Lys	Ser	Leu	Cys	Met	Val
	50					55					60				
Lys	Cys	His	Trp	Lys	Glu	Lys	Gln	Asp	Tyr	Ala	Phe	Ala	Cys	Glu	Gln

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65          70          75          80
Met Lys Ser Ile Arg Gln Asp Leu Thr Val Gln Gly Ile Arg Thr Glu
      85          90          95
Phe Thr Val Glu Val Tyr Glu Thr His Ala Arg Ile Ala Leu Glu Lys
      100         105         110
Gly Asp His Glu Glu Phe Asn Gln Cys Gln Thr Gln Leu Lys Ser Leu
      115         120         125
Tyr Ala Glu Asn Leu Pro Gly Asn Val Gly Glu Phe Thr Ala Tyr Arg
      130         135         140
Ile Leu Tyr Tyr Ile Phe Thr Lys Asn Ser Gly Asp Ile Thr Thr Glu
      145         150         155         160
Leu Ala Tyr Leu Thr Arg Glu Leu Lys Ala Asp Pro Cys Val Ala His
      165         170         175
Ala Leu Ala Leu Arg Thr Ala Trp Ala Leu Gly Asn Tyr His Arg Phe
      180         185         190
Phe Arg Leu Tyr Cys His Ala Pro Cys Met Ser Gly Tyr Leu Val Asp
      195         200         205
Lys Phe Ala Asp Arg Glu Arg Lys Val Ala Leu Lys Ala Met Ile Lys
      210         215         220
Thr Tyr Val Val Pro Ser Ser Leu Leu Pro Leu Leu Phe Pro Ser Phe
      225         230         235         240
Arg Leu Ala Pro Pro Leu Arg Pro Ala Pro Gly Arg Arg Pro Pro Pro
      245         250         255
Ala Pro Asn Pro Cys Pro Gly Pro Cys Phe Pro Ile Ile Phe Leu His
      260         265         270
Ser Ala Leu Pro Ser Pro Val Pro Leu Ala Leu Leu Val Gly His Leu
      275         280         285
Cys Val Pro Gly His Ser Ser Pro Ser Pro His Cys Ser Gln Leu Thr
      290         295         300
Ala Ser Gly Ala Ser Ser Pro Pro His Leu Cys Val Ser Ser Ser Cys
      305         310         315         320
Ser Leu Leu Pro Gly Pro Pro Ser Ser Leu Leu Ala Leu Gly Phe Leu
      325         330         335
Arg Thr Leu Arg Ser Leu Leu Ser Gln Leu Val Ala Val Leu Pro Pro
      340         345         350

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<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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120
gtttccttgt ggggtggaggg tactttcccg ccccctgggt tcgggcttgc ccacgtggct
180
tgctctggcc atggaatgaa gcagaaacga aagcctgccg gttctgagcc tatgccggaa
240
gacgccttgg gcggttccgc ggtccctgtg cgcttccacc ttcaccaga aggacttctc
300
tggtgcagcc gctgcttctt cagccacggc caaaaggat cggagcccc tggccgatcc
360

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gcaggtctgc agggagccac agagcgcagc ggccggccca gcgttcaagc ccaagcacag
 420
 gcctgcgaga accttggtcc agccaccgtt tgggatgggt gattaggact tggtgcagtg
 480
 gcggtagctc accaatccag tgcgtgcacc cgctccttta ttaggctata gagccagtgg
 540
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 600
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 660
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 780
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 960
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 1020
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 1080
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 1140
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 1200
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 1260
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 1287

<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

Met	Val	Ser	Leu	Trp	Val	Glu	Gly	Thr	Phe	Pro	Pro	Pro	Gly	Phe	Gly
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Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
			20					25					30		
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
			35				40					45			
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
		50				55				60					
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65					70					75				80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
			85					90					95		
Gln	Ala	Gln	Ala	Gln	Ala	Cys	Glu	Asn	Leu	Val	Pro	Ala	Thr	Val	Trp
			100					105					110		
Asp	Gly														

<210> 4255
<211> 2205
<212> DNA
<213> Homo sapiens

<400> 4255
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120
aacaccaat ggcgtcctca gaatttatte tgggtccctc atgggacaag cattggatcc
180
cactaggaaa caatggatc tccatgcagt agctaatacca gggttgattt ctttgactgg
240
tccttactta gatgttgag gagctgggta tgtgtgaca atcagtcaca caattcatte
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360
cagatacttc taaaaagttc tgatggacct attacctgtc tgtaaccaag atggtggcaa
420
caaaataagg tgcttcataa tggaggacag gggttatctg gtggcgcacc cgactctcat
480
cgaccccaaa ggacatgcac ctgtggagca gcagcacatc acccacaagg agccccctgg
540
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660
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<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
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Pro Asn Phe Val Lys Lys Asn Leu Cys Asn Ser Phe Ser Asp Arg Thr
          180          185          190
Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr
          195          200          205
Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile
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Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser
225          230          235          240
Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys
          245          250          255
His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu
          260          265          270
Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn
          275          280          285
Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp
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Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser
305          310          315          320
Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp
          325          330          335
Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys
          340          345          350
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<210> 4257

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 4257

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<210> 4258

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4258

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			20					25				30			
Glu	Asp	Leu	Ala	Pro	Phe	Ser	Leu	Arg	Lys	Arg	Trp	Glu	Ser	Glu	Pro
		35					40				45				
His	Pro	Tyr	Val	Phe	Phe	Asn	Asp	Asp	His	Thr	Thr	Met	Thr	Phe	Ile
		50				55				60					
Gly	Phe	His	Leu	Gln	Pro	Asn	Ile	Asn	Gly	Ser	Val	Asp	Ala	Ile	Ser
65				70				75				80			
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<213> Homo sapiens
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<400> 4260

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          20           25           30
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          35           40           45
Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val
          50           55           60
His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly
65           70           75           80
Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met
          85           90           95
Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser Ala Lys Arg Leu
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<210> 4261

<211> 592

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<400> 4261

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<210> 4262

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<213> Homo sapiens

<400> 4262

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	50		55		60										
Leu	Gly	Val	Leu	Glu	Glu	Ala	Arg	Phe	Phe	Gly	Ile	Asp	Ser	Leu	Ile
65			70		75									80	
Glu	His	Leu	Glu	Val	Ala	Ile	Lys	Asn	Ser	Gln	Pro	Pro	Glu	Asp	His
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Ser	Pro	Ile	Ser	Arg	Lys	Glu	Phe	Val	Arg	Phe	Leu	Leu	Ala	Thr	Pro
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Thr	Lys	Ser	Glu	Leu	Arg	Cys	Gln	Gly	Leu	Asn	Phe	Ser	Gly	Ala	Asp
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<211> 797

<212> PRT

<213> Homo sapiens

<400> 4264

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Asn	Glu	Glu	Leu	Gly	Gln	Val	Glu	Tyr	Ile	Phe	Thr	Asp	Lys	Thr	Gly
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Thr	Leu	Thr	Glu	Asn	Asn	Met	Glu	Phe	Lys	Glu	Cys	Cys	Ile	Glu	Gly
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Ser	Ser	Gly	Ile	Asp	Met	Ile	Asp	Ser	Ser	Pro	Ser	Val	Asn	Gly	Arg
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Glu	Arg	Glu	Glu	Leu	Phe	Phe	Arg	Ala	Leu	Cys	Leu	Cys	His	Thr	Val
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Leu	Val	Glu	Gly	Val	Gln	Arg	Leu	Gly	Phe	Thr	Tyr	Leu	Arg	Leu	Lys
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Asp	Asn	Tyr	Met	Glu	Ile	Leu	Asn	Arg	Glu	Asn	His	Ile	Glu	Arg	Phe
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Glu	Leu	Leu	Glu	Ile	Leu	Ser	Phe	Asp	Ser	Val	Arg	Arg	Arg	Met	Ser
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Lys Met Glu Thr Ala Ala Ala Thr Cys Tyr Ala Cys Lys Leu Phe Arg
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Pro Ile Thr Leu Ala Ile Gly Asp Gly Ala Asn Asp Val Ser Met Ile
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Ala Ala Arg Asn Ser Asp Tyr Ala Ile Pro Lys Phe Lys His Leu Lys
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Lys Met Leu Leu Val His Gly His Phe Tyr Tyr Ile Arg Ile Ser Glu
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Phe Leu Tyr Gln Phe Phe Cys Gly Phe Ser Gln Gln Thr Val His Asp
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Leu Leu Tyr Ser Leu Met Glu Gln His Val Gly Ile Asp Val Leu Lys
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Arg Asp Pro Thr Leu Tyr Arg Asp Val Ala Lys Asn Ala Leu Leu Arg
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Trp Arg Val Phe Ile Tyr Trp Thr Leu Leu Gly Leu Phe Asp Ala Leu
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Val Phe Phe Phe Gly Ala Tyr Phe Val Phe Glu Asn Thr Thr Val Thr
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Ser Asn Gly Gln Ile Phe Gly Asn Trp Thr Phe Gly Thr Leu Val Phe
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Tyr Trp Thr Trp Ile Asn His Phe Val Ile Trp Gly Ser Leu Leu Phe
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Tyr Val Val Phe Ser Leu Leu Trp Gly Gly Val Ile Trp Pro Phe Leu

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Pro	Ala	Trp	Leu	Ala	Ile	Val	Leu	Leu	Val	Thr	Ile	Ser	Leu	Leu	Pro
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Asp	Val	Leu	Lys	Lys	Val	Leu	Cys	Arg	Gln	Leu	Trp	Pro	Thr	Ala	Thr
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<210> 4265

<211> 2422

<212> DNA

<213> Homo sapiens

<400> 4265

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<210> 4266

<211> 613

<212> PRT

<213> Homo sapiens

<400> 4266

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His Met Gly Phe Asn Asp Asp Arg Arg Phe Pro Asp Phe Ser Tyr Ile
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Thr Gln Asn Gly Arg Leu Thr Asp Phe Leu Asp Cys Val Ile Ile Ser
65           70           75           80
His Phe His Leu Asp His Cys Gly Ala Leu Pro Tyr Phe Ser Glu Met
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Val Gly Tyr Asp Gly Pro Ile Tyr Met Thr His Pro Thr Gln Ala Ile
100          105          110
Cys Pro Ile Leu Leu Glu Asp Tyr Arg Lys Ile Ala Val Asp Lys Lys
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Gly Glu Ala Asn Phe Phe Thr Ser Gln Met Ile Lys Asp Cys Met Lys
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Lys Val Val Ala Val His Leu His Gln Thr Val Gln Val Asp Asp Glu
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Leu Glu Ile Lys Ala Tyr Tyr Ala Gly His Val Leu Gly Ala Ala Met
165          170          175
Phe Gln Ile Lys Val Gly Ser Glu Ser Val Val Tyr Thr Gly Asp Tyr
180          185          190
Asn Met Thr Pro Asp Arg His Leu Gly Ala Ala Trp Ile Asp Lys Cys
195          200          205
Arg Pro Asn Leu Leu Ile Thr Glu Ser Thr Tyr Ala Thr Thr Ile Arg
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Asp Ser Lys Arg Cys Arg Glu Arg Asp Phe Leu Lys Lys Val His Glu
225          230          235          240
Thr Val Glu Arg Gly Gly Lys Val Leu Ile Pro Val Phe Ala Leu Gly
245          250          255
Arg Ala Gln Glu Leu Cys Ile Leu Leu Glu Thr Phe Trp Glu Arg Met
260          265          270
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Asn His Tyr Tyr Lys Leu Phe Ile Pro Trp Thr Asn Gln Lys Ile Arg
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<211> 2230

<212> DNA

<213> Homo sapiens

<400> 4267

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<210> 4268

<211> 210
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<400> 4268

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 Lys Arg Cys Glu Ser Cys Ser Gln Lys Leu Glu Arg Glu Asn Asn His
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 Leu Asn Asn Glu Glu His Glu Tyr Ala Ser Lys Lys Arg Lys Lys Asp
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 His Phe Arg Asn Asp Thr Asn Thr Gln Ser Phe Tyr His Glu Lys Trp
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 Ile Tyr Val His Lys Glu Ser Thr Lys Glu Arg His Gly Tyr Cys Thr
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 Ile Leu Asp Lys Ile Val Gln Lys Val Leu Asp Asp His His Asn Pro
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<210> 4269
 <211> 5748
 <212> DNA
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<400> 4269

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<211> 1084

<212> PRT

<213> Homo sapiens

<400> 4270

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<211> 588

<213> Homo sapiens

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<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

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Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
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Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
	145				150					155				160	
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170						175	
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
		180						185					190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
		195					200					205			
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
	210					215					220				
Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

<210> 4275

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4275

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 120
 ctcaagtccga agcctgtgtc catcgtgtcc ccggagccag ggaccaccgc tgacgtgctg
 180
 gagaccccag tcgacctggc cggatttcct gtgctgctga gcgacacggc tgggttgctg
 240
 gagggcgctgg ggcccggtga gcaggaggc gtgcggcgcg cccgggagag gctagagcag
 300
 gctgacctca ttctggccat gctggatgct tctgacctgg cctctccctc cagttgcaac
 360
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 420
 ctctctctgg tgctgaacaa gtcggacctg ctgtccccgg agggcccagg tcccggctct
 480
 gacctgcccc cgcacctgct gctgtcctgt ctgacgggag aggggctgga cggcctcctg
 540
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 600
 ctgacccgag caaggcacca gcaccacctc cagggttgcc tggatgcct cggccactac
 660
 aagcagtcaa aagacctggc cctggcggca gaggcgctgc ggggtggccc gggtcacctg
 720
 acccggtca caggtggagg gggtagcgag gagatcctgg acatcatctt ccaggacttc
 780
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 840
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 874

<210> 4276

<211> 264

<212> PRT

<213> Homo sapiens

<400> 4276

Met Gln Val Ala Leu Gly Ala His Leu Arg Asp Ala Arg Arg Gly Gln
 1 5 10 15
 Arg Leu Arg Ser Gly Ala His Val Val Val Thr Gly Pro Pro Asn Ala
 20 25 30
 Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile
 35 40 45
 Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val
 50 55 60
 Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

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65              70              75              80
Glu Gly Val Gly Pro Val Glu Gln Glu Gly Val Arg Arg Ala Arg Glu
      85              90              95
Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp
      100             105             110
Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser
      115             120             125
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Val
      130             135             140
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro
145             150             155             160
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu
      165             170             175
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Ala Val Cys Gly
      180             185             190
Asp Pro Ser Thr Asp Pro Pro Leu Leu Thr Arg Ala Arg His Gln His
      195             200             205
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys
      210             215             220
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu
225             230             235             240
Thr Arg Leu Thr Gly Gly Gly Gly Thr Glu Glu Ile Leu Asp Ile Ile
      245             250             255
Phe Gln Asp Phe Cys Val Gly Lys
      260

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<210> 4277

<211> 1070

<212> DNA

<213> Homo sapiens

<400> 4277

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120
aggaccagge ccgcgggctc agctctcgcc gccagcgggc cgcagcattt ttgaaacgtt
180
ggggttgttg gagtgggttg attttccttg gaattgagtg agaaattcag aagactgaag
240
cccaggctta ctgtctacct ttcacggagg cctagccgtg agaggacaga agaaggcacg
300
tggcgaatca tgacagcgga caaagacaaa gacaaagaca aagagaagga ccgggaccga
360
gaccgggacc gagagagaga gaaaagagac aaagcaagag agagtgagaa ttcaaggcca
420
cgccggagct gtaccttgga aggaggagcc aaaaattatg ctgagagtga tcacagtga
480
gacgaggaca atgacaacaa tagtgccacc gcagaggagt ccacgaagaa gaataagaag
540
aaaccaccga aaaaaaagtc tcgttatgaa aggacagata ccggtgagat aacatcctac
600
atcactgaag atgatgtggt ctacagacca ggagactgtg tgtatatcga gagtccggagg
660

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ccaaacacac cgtatttcat ctgtagcatt caagacttca aactggtcca caactcccag
 720
 gcctgttgca gatctccaac tctgtctttg tgtgaccccc cagcatgctc tctgccggtg
 780
 gcatcacagc caccacagca tctttctgaa gccgggagag ggcctgtagg gagtaagagg
 840
 gaccatctcc tcatgaacgt caaatgggtac taccgtcaat ctgaggttcc agattctgtg
 900
 tatcagcatt tggttcagga tcgacataat gaaaatgact ctggaagaga acttgtcatt
 960
 acagacccag ttatcaagaa ccgagagctc ttcattttctg attacgttga cacttaccat
 1020
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 1070

<210> 4278

<211> 253

<212> PRT

<213> Homo sapiens

<400> 4278

Met	Thr	Ala	Asp	Lys	Asp	Lys	Asp	Lys	Asp	Lys	Glu	Lys	Asp	Arg	Asp
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Arg	Asp	Arg	Asp	Arg	Glu	Arg	Glu	Lys	Arg	Asp	Lys	Ala	Arg	Glu	Ser
			20					25					30		
Glu	Asn	Ser	Arg	Pro	Arg	Arg	Ser	Cys	Thr	Leu	Glu	Gly	Gly	Ala	Lys
			35				40					45			
Asn	Tyr	Ala	Glu	Ser	Asp	His	Ser	Glu	Asp	Glu	Asp	Asn	Asp	Asn	Asn
			50			55				60					
Ser	Ala	Thr	Ala	Glu	Glu	Ser	Thr	Lys	Lys	Asn	Lys	Lys	Lys	Pro	Pro
					70					75				80	
Lys	Lys	Lys	Ser	Arg	Tyr	Glu	Arg	Thr	Asp	Thr	Gly	Glu	Ile	Thr	Ser
			85					90					95		
Tyr	Ile	Thr	Glu	Asp	Asp	Val	Val	Tyr	Arg	Pro	Gly	Asp	Cys	Val	Tyr
			100					105					110		
Ile	Glu	Ser	Arg	Arg	Pro	Asn	Thr	Pro	Tyr	Phe	Ile	Cys	Ser	Ile	Gln
			115				120					125			
Asp	Phe	Lys	Leu	Val	His	Asn	Ser	Gln	Ala	Cys	Cys	Arg	Ser	Pro	Thr
			130			135				140					
Pro	Ala	Leu	Cys	Asp	Pro	Pro	Ala	Cys	Ser	Leu	Pro	Val	Ala	Ser	Gln
					150					155				160	
Pro	Pro	Gln	His	Leu	Ser	Glu	Ala	Gly	Arg	Gly	Pro	Val	Gly	Ser	Lys
				165				170					175		
Arg	Asp	His	Leu	Leu	Met	Asn	Val	Lys	Trp	Tyr	Tyr	Arg	Gln	Ser	Glu
			180					185					190		
Val	Pro	Asp	Ser	Val	Tyr	Gln	His	Leu	Val	Gln	Asp	Arg	His	Asn	Glu
			195				200				205				
Asn	Asp	Ser	Gly	Arg	Glu	Leu	Val	Ile	Thr	Asp	Pro	Val	Ile	Lys	Asn
			210			215				220					
Arg	Glu	Leu	Phe	Ile	Ser	Asp	Tyr	Val	Asp	Thr	Tyr	His	Ala	Ala	Ala
				225		230				235				240	
Leu	Arg	Gly	Lys	Cys	Asn	Ile	Leu	His	Phe	Ser	Asp	Ile			
				245					250						

<210> 4279

<211> 1963

<212> DNA

<213> Homo sapiens

<400> 4279

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120
gcaatggccc tgagagacac cgaggacaag ctacgtcggg gcccgaagag gaggaaggac
180
atccttgtag agttgaccaa gagccagaag gttttctcag aaaagctgga ccacctgagc
240
cgccgtcttg cctgggtcca tgccactgtc tactcccagg agaagatgct ggacatctac
300
tggtgctgtc gcgtctgcct gcggaccatt gagcacgggt atgcacagg gtctctcttt
360
gccttcatgc ccgagttcta cctgagcgtg gccatcaaca gctacagtgc tctcaagaat
420
tactttggtc ccgtgcacag catggaggag ctcccaggct atgaagagac cctgaccgcg
480
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540
gactactga tgcaggccct ggccagctac gtgtgctacc cacactccct gcgggctgtg
600ccgaggagca gcgtatcgcc atggtgagga acctcctggc gccctatgag 660
cagcggccct gggcccagac caactggatc ctggtgcggc tctggagggg ctgtggcttc
720
gggtaccgct atacacggct gccacatctg ctgaaaacca aacttgagga cgccaatttg
780
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840
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900
gccttctctg aattcatttg catgatccaa gagatccagc aggctgctga gcgcctggag
960
cggaactttg tggacagccg gcagctcaag gtatgtgcca cctgctttga cctctcggtc
1020
agcctgctgc gtgtcttggg gatgactatc aactggtgc ctgagatatt ccttgactgg
1080
accggccta cctctgagat gctgctgcgg cgtcttgac agctgctaaa ccagggtgctg
1140
aaccgggtga cagctgagag gaacctgttt gatcgtgtgg tcacctacg gctgcctggc
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1380
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1440
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1500

caggcagcag ctgcctccct gccaccagt gaggaggacc tctgccccat ctgctatgcc
 1560
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 1620
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 1680
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 1740
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 1800
 ccctttgccc ttctcctgta tcccacacca ccacatccaa cctccttgcc tgctgtatc
 1860
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 1920
 ccacagttag cattaaatta ttattccata caaaaaaaaaaaa aaa
 1963

<210> 4280

<211> 575

<212> PRT

<213> Homo sapiens

<400> 4280

Arg Pro Leu Thr Glu Asn Ser Leu Leu Glu Val Leu Asp Gly Thr Val
 1 5 10 15
 Met Met Tyr Ser Leu Ser Val His Gln Gln Leu Gly Lys Met Val Gly
 20 25 30
 Val Ser Asp Asp Val Asn Glu Tyr Ala Met Ala Leu Arg Asp Thr Glu
 35 40 45
 Asp Lys Leu Arg Arg Cys Pro Lys Arg Arg Lys Asp Ile Leu Ala Glu
 50 55 60
 Leu Thr Lys Ser Gln Lys Val Phe Ser Glu Lys Leu Asp His Leu Ser
 65 70 75 80
 Arg Arg Leu Ala Trp Val His Ala Thr Val Tyr Ser Gln Glu Lys Met
 85 90 95
 Leu Asp Ile Tyr Trp Leu Leu Arg Val Cys Leu Arg Thr Ile Glu His
 100 105 110
 Gly Asp Arg Thr Gly Ser Leu Phe Ala Phe Met Pro Glu Phe Tyr Leu
 115 120 125
 Ser Val Ala Ile Asn Ser Tyr Ser Ala Leu Lys Asn Tyr Phe Gly Pro
 130 135 140
 Val His Ser Met Glu Glu Leu Pro Gly Tyr Glu Glu Thr Leu Thr Arg
 145 150 155 160
 Leu Ala Ala Ile Leu Ala Lys His Phe Ala Asp Ala Arg Ile Val Gly
 165 170 175
 Thr Asp Ile Arg Asp Ser Leu Met Gln Ala Leu Ala Ser Tyr Val Cys
 180 185 190
 Tyr Pro His Ser Leu Arg Ala Val Glu Arg Ile Pro Glu Glu Gln Arg
 195 200 205
 Ile Ala Met Val Arg Asn Leu Leu Ala Pro Tyr Glu Gln Arg Pro Trp
 210 215 220
 Ala Gln Thr Asn Trp Ile Leu Val Arg Leu Trp Arg Gly Cys Gly Phe
 225 230 235 240
 Gly Tyr Arg Tyr Thr Arg Leu Pro His Leu Leu Lys Thr Lys Leu Glu


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                245                250                255
Asp Ala Asn Leu Pro Ser Leu Gln Lys Pro Cys Pro Ser Thr Leu Leu
                260                265                270
Gln Gln His Met Ala Asp Leu Leu Gln Gln Gly Pro Asp Val Ala Pro
                275                280                285
Ser Phe Leu Asn Ser Val Leu Asn Gln Leu Asn Trp Ala Phe Ser Glu
                290                295                300
Phe Ile Gly Met Ile Gln Glu Ile Gln Gln Ala Ala Glu Arg Leu Glu
305                310                315                320
Arg Asn Phe Val Asp Ser Arg Gln Leu Lys Val Cys Ala Thr Cys Phe
                325                330                335
Asp Leu Ser Val Ser Leu Leu Arg Val Leu Glu Met Thr Ile Thr Leu
                340                345                350
Val Pro Glu Ile Phe Leu Asp Trp Thr Arg Pro Thr Ser Glu Met Leu
                355                360                365
Leu Arg Arg Leu Ala Gln Leu Leu Asn Gln Val Leu Asn Arg Val Thr
370                375                380
Ala Glu Arg Asn Leu Phe Asp Arg Val Val Thr Leu Arg Leu Pro Gly
385                390                395                400
Leu Glu Ser Val Asp His Tyr Pro Ile Leu Val Ala Val Thr Gly Ile
                405                410                415
Leu Val Gln Leu Leu Val Arg Gly Pro Ala Ser Glu Arg Glu Gln Ala
                420                425                430
Thr Ser Val Leu Leu Ala Asp Pro Cys Phe Gln Leu Arg Ser Ile Cys
                435                440                445
Tyr Leu Leu Gly Gln Pro Glu Pro Pro Ala Pro Gly Thr Ala Leu Pro
450                455                460
Ala Pro Asp Arg Lys Arg Phe Ser Leu Gln Ser Tyr Ala Asp Tyr Ile
465                470                475                480
Ser Ala Asp Glu Leu Ala Gln Val Glu Gln Met Leu Ala His Leu Thr
                485                490                495
Ser Ala Ser Ala Gln Ala Ala Ala Ala Ser Leu Pro Thr Ser Glu Glu
500                505                510
Asp Leu Cys Pro Ile Cys Tyr Ala His Pro Ile Ser Ala Val Phe Gln
515                520                525
Pro Cys Gly His Lys Ser Cys Lys Ala Cys Ile Asn Gln His Leu Met
530                535                540
Asn Asn Lys Asp Cys Phe Phe Cys Lys Thr Thr Ile Val Ser Val Glu
545                550                555                560
Asp Trp Glu Lys Gly Ala Asn Thr Ser Thr Thr Ser Ser Ala Ala
                565                570                575

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<210> 4281

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4281

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120
gctgactctg agaggcagtg ggcttccgc cagcacctcc ccctatcaca tttgtagggc
180

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tggtttatga ggccggaagt aagcaagcac cccctcatat caacctggca cttcacaccc
 240
 cccatggtta tcagtggggg tgctggctgg ctggcaggca gccagagaca tttcagcagg
 300
 tcaggcatgg atgcaggtgg aaatgagaga ggatcagtga gcgcattcat gtcttttgag
 360
 tggtctacag atgagtgggc tccagtctca aatgaggaga acaaataagg aagtaggagc
 420
 tcagggttct tgtgtgtctc ataggcagct gcctatccct gggtgataca gctccctggc
 480
 acacccattc ccaagggcac aggatcc
 507

<210> 4282
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4282
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 Asp Leu Leu Lys Cys Leu Trp Leu Pro Ala Ser Gln Pro Ala Pro Pro
 20 25 30
 Leu Ile Thr Met Gly Gly Val Lys Cys Gln Val Asp Met Arg Gly Cys
 35 40 45
 Leu Leu Thr Ser Gly Leu Ile Asn Gln Pro Tyr Lys Cys Asp Arg Gly
 50 55 60
 Arg Cys Trp Arg Glu Ala His Cys Leu Ser Glu Ser Ala Gln Arg Thr
 65 70 75 80
 Glu Ser Gly Asp Ser Trp Gln Lys Arg Gly Gly Leu Arg Leu Trp Gly
 85 90 95
 Ile Trp Pro Ile Gly Gln Leu Trp Gly Ser
 100 105

<210> 4283
 <211> 315
 <212> DNA
 <213> Homo sapiens

<400> 4283
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 120
 gggagaaacc gaggccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaacctccc gaaaacccaa gtttgtccgg cacaacttcg gtctctccag
 240
 cctcattcct gcccgcactc cgccaaactg ctgcacctgc ccagcgagc ggatgcagcg
 300
 ctcccggccc nacgg
 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284
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 Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser
 20 25 30
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 35 40 45
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
 50 55 60
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys
 65 70 75 80
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
 85 90

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285
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 aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa
 120
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat
 180
 atatggtgat gccagcctg cagtctgacc cctgaccctc ctctgaaccc gttcccccaa
 240
 cgggatctgg cagtgaccac cagaacctgg agcccacctg agtccagact tccctcacc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc
 360
 agtgtggagt ctcccagcgc ccccagctcc ttgtcttctt gcagggtctgc tgtgcacgtg
 420
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggcctcgagc
 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
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 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro
 1 5 10 15
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

			20					25					30				
Arg	Leu	Pro	Ser	Pro	Pro	Arg	Thr	His	Pro	Thr	Thr	Ala	Pro	Asn	Leu		
		35					40					45					
Ser	Cys	Thr	Ala	Val	Tyr	Thr	Leu	Ser	Ser	Val	Glu	Ser	Pro	Ser	Ala		
	50					55				60							
Pro	Ser	Ser	Leu	Ser	Ser	Cys	Arg	Ser	Ala	Val	His	Val	Leu	Gln	Asp		
65					70					75					80		
Ser	Ile	Asp	Ser	Leu	Thr	Leu	Cys	Ser	Gly	Ala	Cys	Pro	Lys	Ala	Ser		
			85					90					95				
Ser	Leu	Arg	Gly	His	Lys	Gly	Thr	Ser	Ala								
			100					105									

<210> 4287

<211> 868

<212> DNA

<213> Homo sapiens

<400> 4287

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 120
 cggaagcta cagtgttgaa gacatggatg agggtagcga cgaagtcggg gaggaagaga
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 300
 cgaatgagcc ctgggaactg gaaaaccnct gtgctggccc agaccctggg ggaggcattg
 360
 cagctggatc cggaaacact tgccaatgag acggccgccc gtgctgcca cgtagcccgc
 420
 gccgcccctt ccaaccgtgc ggctcgggccc gctgccgccc ctgccgtac cgccttcagt
 480
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 540
 acgacctacg ccgcccaggc tcaggggccc acccctgagc cacccttgc ttctccgcag
 600
 acctcccaga tgtagtcac cagtaagatg gctgcccccg aggctccggc aacctccgca
 660
 cagtcccaga caggctcccc ggcccaggag gctgctactg agggccctag tagcgctgt
 720
 gcattctctc aggtccgtg tgccaggag gtggacgcca accggcccag cacagccttc
 780
 ctgggcccaga atgatgtctt cgatttcact cagccggcag tgtcagtggc atggcttccc
 840
 gcgccaaga gacctgcca gccaaagag
 868

<210> 4288

<211> 240

<212> PRT

<213> Homo sapiens

<400> 4288

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Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
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 20           25           30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
 35           40           45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
 50           55           60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
 65           70           75           80
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ser Asn
 85           90           95
Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
 100          105          110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
 115          120          125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
 130          135          140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
 145          150          155          160
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
 165          170          175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
 180          185          190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
 195          200          205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
 210          215          220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
 225          230          235          240

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<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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ggatccctgg gaagatgact accctgcctg tgcgggatat gagggagaaa tatgggagcc
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tcctcacttc aggtgtcact gtcagcata tatccaggct ttgttttcat attggtcttg
 120
caaagagcct tttgggaaca gttttcttat tgaaacatac tcagtgttta aacctgcagg
 180
tgtgggttgg tggcagtcca catggcatcc tttgctctgt ccctgttctc ctgtctctgg
 240
ctattcaggt tcccgtaggg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
 300
gccctgttt ttggagtcct tgtgctgagg ccgctgtaac ttgaggagag ttg
 353

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<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

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Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
      20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
      35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
      50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
      85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
      100          105          110
Leu

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<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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caagcagtca ctcccctagc ccatcatcac acagattatt caaagccac cgatatctca
120
tgagagaca cactttctca gaagtttgga tcttcagatc acttgagaa actatttaag
180
atggatgaag caagtgccca gctccttgct tataaggaaa aaggccattc tcagagttca
240
caattttcct ctgatcaaga aatagctcat ctgctgctg aaaatgtgag tgcgctccca
300
gctacggtgg cagttgcttc tccacatacc acctcggtta ctccaaagcc cgccaccctt
360
ctaccacca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
420
gctccacctg taaccactgt cactttctcag cctccacga ccctcatttc tacagttttt
480
acacgggctg tggctacact ccaagcaatg gctacaa
517

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<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

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Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```

```

                20                25                30
Tyr Ser Lys Pro Thr Asp Ile Ser Trp Arg Asp Thr Leu Ser Gln Lys
      35                40                45
Phe Gly Ser Ser Asp His Leu Glu Lys Leu Phe Lys Met Asp Glu Ala
      50                55                60
Ser Ala Gln Leu Leu Ala Tyr Lys Glu Lys Gly His Ser Gln Ser Ser
      65                70                75                80
Gln Phe Ser Ser Asp Gln Glu Ile Ala His Leu Leu Pro Glu Asn Val
      85                90                95
Ser Ala Leu Pro Ala Thr Val Ala Val Ala Ser Pro His Thr Thr Ser
      100                105                110
Ala Thr Pro Lys Pro Ala Thr Leu Leu Pro Thr Asn Ala Ser Val Thr
      115                120                125
Pro Ser Gly Thr Ser Gln Pro Gln Leu Ala Thr Thr Ala Pro Pro Val
      130                135                140
Thr Thr Val Thr Ser Gln Pro Pro Thr Thr Leu Ile Ser Thr Val Phe
      145                150                155                160
Thr Arg Ala Val Ala Thr Leu Gln Ala Met Ala Thr
                165                170

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<210> 4293
 <211> 547
 <212> DNA
 <213> Homo sapiens

<400> 4293
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 60
 gaaacagacg ttcacgggaa acatcaaggc agtggaaaat ggcagaaaat ggaaaagcct
 120
 tacgctttta cagttcactg tgtaaagaga gcacgacggc accgctggaa gtgggcgcag
 180
 gtgactttct ggtgtccaga ggagcagctg tgtcacttgt ggctgcagac cctgcgggag
 240
 atgctggaga agctgacgtc cagaccaaag catttactgg tatttatcaa cccgtttgga
 300
 ggaaaaggac aaggcaagcg gatatatgaa agaaaagtgg caccactggt caccttagcc
 360
 tccatcacca ctgacatcat cgttactgaa catgctaate aggccaagga gactctgtat
 420
 gagattaaca tagacaaata cgacggcatc gtctgtgtcg gcggagatgg tatgttcagc
 480
 gaggtgctgc acggtctgat tgggaggacg cagaggagcg ccggggtcga ccagaaccac
 540
 ccccggg
 547

<210> 4294
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 4294
 Ala Gly Ala Pro Gly Ala Asp Ala Cys Ser Val Pro Val Ser Glu Ile

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      1           5           10           15
Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
      20           25           30
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
      35           40           45
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
      50           55           60
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
      65           70           75           80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
      85           90           95
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
      100          105          110
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
      115          120          125
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile
      130          135          140
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
      145          150          155          160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
      165          170          175
Asp Gln Asn His Pro Arg
      180

```

<210> 4295
 <211> 431
 <212> DNA
 <213> Homo sapiens

<400> 4295
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 60
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 120
 catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
 180
 gagaccccc ttgccacaa gcctaaaaca ttgcatcg agccctttaa gaaagagttt
 240
 gctggccgtg cgcggtggcc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
 300
 gcaggcgggt aggtctggag ttcgaaacca gcctggccag cgtggcgaaa ccctgtctcc
 360
 ccctcccaga ttcacgtgat tatccacct cagcctcctg agtacctggg actataggcg
 420
 cgtgccaacc a
 431

<210> 4296
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 4296
 Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

1				5					10					15				
Val	Thr	Asn	Lys	Ser	Pro	Leu	Leu	Ala	Pro	Cys	Phe	Val	Asn	Lys	Ile			
			20					25					30					
Cys	Trp	Thr	Thr	Ala	Met	Pro	Val	His	Val	His	Phe	Val	Tyr	Gly	Cys			
		35					40					45						
Phe	Cys	Ala	Thr	Thr	Ala	Gly	Leu	Ser	Ile	Ala	Thr	Glu	Thr	Pro	Ile			
	50					55					60							
Ala	His	Lys	Pro	Lys	Thr	Phe	Ala	Ile	Glu	Pro	Phe	Lys	Lys	Glu	Phe			
65					70					75				80				
Ala	Gly	Arg	Ala	Arg	Trp	Pro	Trp	Leu	Pro	Pro	Val	Ile	Pro	Ala	Leu			
				85					90					95				
Trp	Lys	Ala	Glu	Ala	Gly	Gly	Glu	Val	Trp	Ser	Ser	Lys	Pro	Ala	Trp			
		100						105					110					
Pro	Ala	Trp	Arg	Asn	Pro	Val	Ser	Pro	Ser	Gln	Ile	His	Val	Ile	Ile			
		115					120					125						
Pro	Pro	Gln	Pro	Pro	Glu	Tyr	Leu	Gly	Leu									
	130						135											

<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

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gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaag gaggacaatg ccattccttca tattcctcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttggca tctgctgccc ccaggggtctt cctcatccac cacttctggt
360
tcctttcatc tggaagaagg acctcttcca tcttccatgc agctagcagt catcagggga
420
gacaccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctgagg
480
aatggcaaaa cagttcgtcc atcctctgtt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttctt gaaactggag gatgacagt tcccaactca caaaaggaag
600
gccaaagtat ccatcattag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaatccac aactgactca cacttcccca gacaggacca gttgccctca
720
tttccaaaga actgcactct ggaattaaag ggactcttcc attttgaaga aggcattccg
780
aagctgtatc agtgcaatgg gatcgcttgg aaagcctgga gtccccaac caaggatgtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

```

acagagcaga aaggcacctg gaatgcggtt gcccaagctt gcagggaaca atacctgggc
 960
 aaccttgtaa ctgtattctc caggcagcac atgcggtggc tctgggacat tgggtgggaga
 1020
 aagtcctttt ggatagggtt gaacgaccaa gtgcatgctg gccactggga gtggatcggc
 1080
 ggtgaacctg ttgccttcac caatgggaga agagggccct ctccacgctc caagcttgga
 1140
 aagagctgtg ttttggttca aagacaaggg aaatggcaaa caaaagactg taggagagcc
 1200
 aaacctcata attatgtgtg ttccagaaaa ctctaaatat aacagaccct acaggggggc
 1260
 acctggagtt tgtcacctat ttattcacag gatctgtgaa tattgctcca tagaaaacaa
 1320
 attgttatga ttgagtgggt atacctttgt gattctgtct agtgaaaatg ggacattttt
 1380
 aatagtgcc aagagattga taaataaata ttttttacia gataagatac aatttttgta
 1440
 tctcaatacc ttttaaaata aatgccagca gtattaaaaa gtgtaagggt tgtttattcc
 1500
 agaagaccct cacccttacc ccattccaaa tctcaggag caccagtctc atagtccttg
 1560
 gatttttttt aaaaaaatt tttggtcccg ttacctctaa tgaattttatt ctgaaatatg
 1620
 tatcgtaggt gctcctacca ctttagtctg agtggaagc caaaaaac
 1668

<210> 4298

<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

Xaa	Met	Asp	Ser	Ala	Phe	Val	Gly	Ile	Lys	Val	Asn	Gln	Val	Ser	Ala
1				5				10					15		
Ala	Val	Gly	Lys	Asp	Phe	Thr	Val	Ile	Pro	Ser	Lys	Leu	Ile	Gln	Phe
			20					25					30		
Asp	Pro	Gly	Met	Ser	Thr	Lys	Met	Trp	Asn	Ile	Ala	Ile	Thr	Tyr	Asp
			35					40					45		
Gly	Leu	Glu	Glu	Asp	Asp	Glu	Val	Phe	Glu	Val	Ile	Leu	Asn	Ser	Pro
			50					55				60			
Val	Asn	Ala	Val	Leu	Gly	Thr	Lys	Thr	Lys	Ala	Ala	Val	Lys	Ile	Leu
			65					70				75			80
Asp	Ser	Lys	Gly	Gly	Gln	Cys	His	Pro	Ser	Tyr	Ser	Ser	Asn	Gln	Ser
			85					90					95		
Lys	His	Ser	Thr	Trp	Glu	Lys	Gly	Ile	Trp	His	Leu	Leu	Pro	Pro	Gly
			100					105					110		
Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Ser	Phe	His	Leu	Glu	Arg	Arg	Pro
			115					120				125			
Leu	Pro	Ser	Ser	Met	Gln	Leu	Ala	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg
			130					135				140			
Gly	Phe	Asp	Ser	Thr	Asp	Leu	Ser	Gln	Arg	Lys	Leu	Arg	Thr	Arg	Gly
			145					150				155			160
Asn	Gly	Lys	Thr	Val	Arg	Pro	Ser	Ser	Val	Tyr	Arg	Asn	Gly	Thr	Asp

```

                165                170                175
Ile Ile Tyr Asn Tyr His Gly Ile Val Ser Leu Lys Leu Glu Asp Asp
                180                185                190
Ser Phe Pro Thr His Lys Arg Lys Ala Lys Val Ser Ile Ile Ser Gln
                195                200                205
Pro Gln Lys Thr Ile Lys Val Ala Glu Leu Pro Gln Ala Asp Lys Val
                210                215                220
Glu Ser Thr Thr Asp Ser His Phe Pro Arg Gln Asp Gln Leu Pro Ser
225                230                235                240
Phe Pro Lys Asn Cys Thr Leu Glu Leu Lys Gly Leu Phe His Phe Glu
                245                250                255
Glu Gly Ile Gln Lys Leu Tyr Gln Cys Asn Gly Ile Ala Trp Lys Ala
                260                265                270
Trp Ser Pro Gln Thr Lys Asp Val Glu Asp Lys Ser Cys Pro Ala Gly
                275                280                285
Trp His Gln His Ser Gly Tyr Cys His Ile Leu Ile Thr Glu Gln Lys
                290                295                300
Gly Thr Trp Asn Ala Ala Ala Gln Ala Cys Arg Glu Gln Tyr Leu Gly
305                310                315                320
Asn Leu Val Thr Val Phe Ser Arg Gln His Met Arg Trp Leu Trp Asp
                325                330                335
Ile Gly Gly Arg Lys Ser Phe Trp Ile Gly Leu Asn Asp Gln Val His
                340                345                350
Ala Gly His Trp Glu Trp Ile Gly Gly Glu Pro Val Ala Phe Thr Asn
                355                360                365
Gly Arg Arg Gly Pro Ser Pro Arg Ser Lys Leu Gly Lys Ser Cys Val
                370                375                380
Leu Val Gln Arg Gln Gly Lys Trp Gln Thr Lys Asp Cys Arg Arg Ala
385                390                395                400
Lys Pro His Asn Tyr Val Cys Ser Arg Lys Leu
                405                410

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<210> 4299

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4299

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tcccaggagg ggagtggagg gctcaggcac tgggtgccctt gtggcctctt aggctcgagg
120
ccttgggaca ggccccgag cacaagtga ggctgtctat ggagttctgc agcacgtgca
180
cagcagacca tatatcactc agttccttct ggaggtcatc cttccagcag ccaactggctc
240
cctgcggtat ctcttcagtc tccggacagg cggctgtctc atgaccctgc tgcttcatct
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360
tctctgagat ctcatcctcc tgcgcttgga gcttctgata gatgaaggtc acctcctccc
420
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480

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gctgcaggca gcgagtgggtg cgggcccgt gcattctctc actgtcacgc aggggtcttct
 540
 ccagcccctg aaggccttgg gtcaggggcc catcacgtc ctgccggccc tgctccatgc
 600
 cccacttggtg ctctctcttc tctccatggc ggcctgtggg gtcagcacc tcttcaagct
 660
 gctgaatctt gatttgctgc aagcagctct ccttctccaa catggtcact gagtggttca
 720
 ggaactcgaa agccttggtc tgggcctgta actggctctt gagtgactca agttcacatc
 780
 gcaggagctt ctgggagtcg ggaatcatca caatggctct ggctttgact ttggaagagc
 840
 tggtctccaa gggcttcaca taccacctgt tcatgctctn cccatcaggg accacgaagc
 900
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 960
 cagagactga gtcacagaga ggggtgtc
 988

<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

Gly	Cys	Leu	Trp	Ser	Ser	Ala	Ala	Arg	Ala	Gln	Gln	Thr	Ile	Tyr	His
1				5					10					15	
Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
			20					25					30		
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
			35				40					45			
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
	50					55				60					
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
65					70					75				80	
Ala	Ser	Asp	Arg												

<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

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 120
 caggggcaga gcggggcagg aggatgcttt ccagcccca ccatggagct gcgctgtggg
 180
 ggattgctgt tcagttctcg ctttgattca gggaatctag cccacgtgga gaaggtggaa
 240
 tctttgtcca gtgatgggga aggggtagga ggtggggcgt cagccctgac cagtggcatt
 300

gcctcttccc ctgactatga attcaacgtg tggacccgac cagactgtgc tgaaacggaa
360
tttgagaatg ggaacaggtc atggttctac ttcagcgtcc ggggaggaat gccaggaaaa
420
ctcatcaaga tcaacattat gaacatgaac aagcagagca agctgtattc ccagggcatg
480
gccccctttg tgcgcacact gcccaccg ccaagctggg aacgcattcg agaccggccc
540
acctttgaga tgacagagac gcagtttgtg ttatcctttg ttcacgtttt cgtggagggc
600
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720
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780
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840
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900
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960
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1200
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1260
aaagccaaca atctccaaa tgaagctcag tgtgggcact cagctgacag gcataacgct
1320
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1380
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1440
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1560
ttgaattcag ccacttcga cttccagggc tgcaatttct cagagaagaa tatgtatgcc
1620
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1680
tcagggataa tccacagcta cacacttgaa tgcaactaca aactggacg ctacagtaac
1740
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1800
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1860
ctggacatgg cggaatgtaa tccgtggccc cgaattgtac tgtcagagca cagcagcctt
1920

actaatctac gggcctggat gctgaaacat gtacgcaaca gccgaggcct aagcagcact
 1980
 ctgaatgtgg gtgtcaacaa gaagaggggc cttcgaactc cacccaaaag tcacaatggg
 2040
 ttgcctgtct cctgctccga aaacaccttg agtcgggcac gaagtttttag caccggcaca
 2100
 agtgccgggtg gtagcagcag cagccaacaa aattctccac agatgaagaa ttcccccagc
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 2280
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 2429

<210> 4302

<211> 717

<212> PRT

<213> Homo sapiens

<400> 4302

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Gly	Asn	Leu	Ala	His	Val	Glu	Lys	Val	Glu	Ser	Leu	Ser	Ser	Asp	Gly
			20					25					30		
Glu	Gly	Val	Gly	Gly	Gly	Ala	Ser	Ala	Leu	Thr	Ser	Gly	Ile	Ala	Ser
		35				40					45				
Ser	Pro	Asp	Tyr	Glu	Phe	Asn	Val	Trp	Thr	Arg	Pro	Asp	Cys	Ala	Glu
	50				55					60					
Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
65				70					75					80	
Gly	Gly	Met	Pro	Gly	Lys	Leu	Ile	Lys	Ile	Asn	Ile	Met	Asn	Met	Asn
			85					90					95		
Lys	Gln	Ser	Lys	Leu	Tyr	Ser	Gln	Gly	Met	Ala	Pro	Phe	Val	Arg	Thr
			100					105					110		
Leu	Pro	Thr	Arg	Pro	Arg	Trp	Glu	Arg	Ile	Arg	Asp	Arg	Pro	Thr	Phe
		115					120				125				
Glu	Met	Thr	Glu	Thr	Gln	Phe	Val	Leu	Ser	Phe	Val	His	Arg	Phe	Val
	130				135						140				
Glu	Gly	Arg	Gly	Ala	Thr	Thr	Phe	Phe	Ala	Phe	Cys	Tyr	Pro	Phe	Ser
145				150					155					160	
Tyr	Ser	Asp	Cys	Gln	Glu	Leu	Leu	Asn	Gln	Leu	Asp	Gln	Arg	Phe	Pro
			165					170				175			
Glu	Asn	His	Pro	Thr	His	Ser	Ser	Pro	Leu	Asp	Thr	Ile	Tyr	Tyr	His
		180						185				190			
Arg	Glu	Leu	Leu	Cys	Tyr	Ser	Leu	Asp	Gly	Leu	Arg	Val	Asp	Leu	Leu
		195					200				205				
Thr	Ile	Thr	Ser	Cys	His	Gly	Leu	Arg	Glu	Asp	Arg	Glu	Pro	Arg	Leu
	210				215						220				
Glu	Gln	Leu	Phe	Pro	Asp	Thr	Ser	Thr	Pro	Arg	Pro	Phe	Arg	Phe	Ala

<400> 4304															
Thr	Arg	Ala	Ala	Arg	Glu	Leu	Asp	Asn	Leu	Gln	Tyr	Arg	Lys	Met	Lys
1				5					10					15	
Lys	Leu	Leu	Phe	Gln	Glu	Ala	His	Asn	Gly	Pro	Ala	Val	Glu	Ala	Gln
			20					25					30		
Glu	Glu	Glu	Glu	Glu	Gln	Asp	His	Gly	Val	Gly	Arg	Thr	Gly	Thr	Val
			35				40					45			
Asn	Ser	Val	Gly	Ser	Asn	Gln	Ser	Ile	Pro	Ser	Met	Ser	Ile	Ser	Ala